Date: 14th March, 2014

EXPOSURE DRAFT
Guidance Note on Internal Audit of Mining and Metallurgical Industry

The following is the Exposure Draft of Guidance Note on Internal Audit of Mining and Metallurgical Industry issued by the "Professional Development Committee" of the Institute of Cost Accountants of India, for comments and suggestions. The comments/ suggestions on any aspect of this Exposure Draft would be most helpful if they indicate the specific paragraph or group of paragraphs including page number to which they relate, also contain a clear rationale and, where applicable, provide a suggestion for alternative wording.

The proposed Guidance Note may be modified in light of comments/ suggestions received before the same being issued as Guidance Note on Internal Audit of Mining and Metallurgical Industry.

Please submit your views/ comments/ suggestions preferably by email at pd.budhiraja@icmai.in or pd@icmai.in latest by ***April 3, 2014.***

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EXPOSURE DRAFT

GUIDANCE NOTE

ON

INTERNAL AUDIT OF

Mining and Metallurgical Industry

LAST DATE FOR COMMENTS: APRIL 03, 2014

PROFESSIONAL DEVELOPMENT COMMITTEE

The Institute of Cost Accountants of India

(Statutory body under an Act of Parliament)

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Chapter 1
Introduction to Internal Audit

1.1 Defining Internal Audit

Internal Audit function has its own traditional definition which covers inter alia as to an independent function that supports and have management objective in its own and independent way in discharging its observations and timely guidance to the Organization for better management.

However in the wake of evolution in Corporate Laws in the country due to change in time scales, unavoidable and occurrence of bubble-scams that effects the country's economy by one or other reason, ongoing process of Globalization of Industry followed by phenomenal changes and introduction of Policy decisions of Government from time to time stipulates a change and scope of Internal Audit also. In particular it is to say that an Internal Audit is not only a function in its closed circuit that functions for and on behalf of the Management to meet the Organization's objective by fulfilling and following the CARO- requirement and Sections 138 of Companies Act 2013Clause 49 of the Listing agreement of SEBI but also to meet the very objective of introduced Corporate Governance by which Accountability to Society shall also be ensured.

In its new dimension and sense Internal Audit is an independent management function which involves continuous critical analysis of the entity not only with a view to suggesting improvement methods in various functions but also to sense ahead of the evaluating risks and ensuring smooth adherence to Corporate Governance besides other embedded objectives.

The Chartered Institute of Management Accountants, UK (CIMA) defines Internal Audit as:
"An independent appraisal activity established within an organization as a service to it. It is a control which functions by examining and evaluating the adequacy and effectiveness of other controls; a management tool which analyses the effectiveness of all parts of an organization's operations and management."

The Institute of Internal Auditors (IIA) also defines Internal Audit on the similar lines as:
"Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes."

These definitions state two clear functions of the Internal Audit activity namely;

(i) Internal Control

Internal controls direct, monitor, and measures the company's resources and help to detect and prevent fraud from occurring within an organization. It can be defined as a process which is performed by the employees of the company as well as the information technology systems that are used to assist the company in achieving its objectives. The management of a company is responsible for establishing the system of internal controls within the organization, but internal auditors test the controls to make sure they are working effectively.

(ii)Management Tool

Internal Audit has been used as a management tool which monitors and evaluates the effectiveness of operational processes and risk management of a company. How an organization sets their objectives and responds to the risks associated with their objective is part of the risk management process. Risk management is a way for companies to manage uncertainty through risk assessment, to develop strategies to manage risk and to mitigate risk by using managerial resources.

Internal control in the organization helps to ensure that Government/others achieve their intended results; that the resources used to deliver these programmes are consistent with the stated aims and objectives of the organizations concerned; that programmes are protected from waste, fraud and mismanagement; and that reliable and timely information is obtained, maintained, reported and used for decision making.

Internal audit primarily provides an independent and objective opinion to the CFO/CEO on risk management, control and governance, by measuring and evaluating their effectiveness in achieving the organization's agreed objectives. In addition, internal audit's findings and recommendations are beneficial to the management in the audited areas. Risk management, control and governance comprise the policies, procedures and operations established to ensure the achievement of objectives, the appropriate assessment of risk, the reliability of internal and external reporting and accountability processes, compliance with applicable laws and regulations, and compliance with the behavioural and ethical standards set for the organization.

Internal audit also provides an independent and objective consultancy service specifically to help the -management in improving the organization's risk management, control and governance. The service applies the professional skills of internal audit through a systematic and disciplined evaluation of the policies, procedures and operations that management put in place to ensure the achievement of the organization's objectives, and through recommendations for improvement. Such consultancy work contributes to the opinion which internal audit provides on risk management, control and governance.

Thus, Internal Audit as a function must make recommendations to improve the overall internal control environment including financial and legal compliances, to safeguard assets and to improve the operational performance of the organization as a whole.

1.2 Necessity of Internal Audit

The necessity of Internal Audit function in an organization is of two fold i.e. mandatory under various stipulated laws like Companies Act and other Laws as explained above and secondly to keep the entity on its own strength and to become survival of fittest in the Corporate World in the times to come.

It is often seen that Government or other binding agencies may not always watch and guard the health of an organization but the entity runs on perpetual basis through self introduced checks and balances viz., internal checks, internal controls that works through the hands of Healthy Internal Audit System.

The internal audit can:

- independently review and appraise the systems of control throughout the organization;
- recommend improvements to internal controls;
- ascertain the extent of compliance with procedures, policies, regulations and legislation;
- provide reassurance to management that their policies are being carried out with adequate control of the associated risks;
- facilitate good practice in managing risks;
- save money by identifying waste and inefficiency, and by facilitating the spread of good practice;
- avoid duplication of effort by an effective partnership with the other review agencies;
- by its activities help to ensure that assets and interests are safeguarded from fraud, deter fraudsters and possibly identify fraud.

It is necessary for every company to continuously ensure authenticity and reliability of data generated and used for decision making and also to avoid duplication of data. It is necessary to verify the source, the quantum and the reliability of all records. The Internal Audit function will primarily concentrate on the system for collection, collation and analysis of data to go into final cost compilation and decision making. The main objective of Internal Audit of Accounts is, to ensure implementation of Control and continuous monitoring of systems being followed. When Internal Audit is carried out for the first time, the ground rule for Internal Audit needs to be laid down, inter alia, including;

- The Internal Audit will primarily concentrate on flow of data and justification of basis instead of vouching.
- The materiality of cost and product under consideration would always be borne in mind during Internal Audit process.
- Objectivity in approach would be a consistent feature in Internal Audit.
- Main thrust would always be on deviations and significance of deviations with impact of the same on the performance of the organization.

As the Internal audit cycle stabilizes, it will help companies in the following areas:

1. Assess Compliance

The organization needs to adhere to rules, regulations, laws, codes of practice, guidelines and principles as they apply individually and collectively to all parts. The Internal Audit cycle periodically checks such compliances and reviews their adequacy.

2. Monitoring Controls

The Internal Audit function must clearly understand the quality and risk management philosophy of the organization before evaluating or reporting on the efficiency and effectiveness of the implementation of management policies.

3. **Analyze Operational Performance**

   Internal Audit function works closely with lower and middle level managers to review daily operations then report their findings. The strategic objectives of the organization play a significant role in understanding how the operations of any given part of the organization fit into the macro level picture.

4. **Evaluation on Risk based approach**

   Internal Audit function identifies key accomplishments and relevant risk factors while evaluating their significance. Any important change in business, economic, political or social conditions impact the way the internal audit function must assess risk. The role of internal auditing has changed from being a reactive and post mortem form to a more proactive and risk based approach. This enables the internal auditor to anticipate possible future threats and opportunities while simultaneously identifying current concerns and providing their preventives.

1.3 Objectives of Internal Audit

The Internal Audit is an independent function established by an organization's management to appraise and evaluate the company's activities and monitor of its controls. One of the primary purposes of internal audit is to support the management of the company to effectively discharge their individual and collective responsibilities.

Thus, Internal Audit provides analyses, appraisals, recommendations, counsel and information concerning the activities reviewed. The internal auditor has a dual role in providing consulting advice, to help the business and also providing objective assurances across the organization. In brief, help is provided to the management on request, or as spin-off from a previous audit, and there will be clear criteria to approving all requests for help. The internal audit function can help with the following:

- Develop and monitor control frameworks
- Establish reporting structures and formalize communication processes
- Aid the cost reduction and operational performance appraisals
- Develop and continuously monitor risk assessment and management
- Undertake workshops for training and awareness
- Assure compliance with all relevant rules and regulations
- Supporting corporate governance and developing resources for management information.

The Internal Audit function must form a part of risk management and formal internal control reporting implementation team for any organization.

1.4 Principles of Internal Audit

The 'Principles of Internal Audit' act as guidelines or standards for undertaking an Internal Audit Function. These principles entail a general list of rules that enable an internal auditor as well as an organization to not only setup a robust and well-oiled internal audit function but also evaluate gaps in the existing internal audit framework. A detailed note on each of the principles is provided in the ensuing chapters and forms the basis for undertaking an effective and efficient internal audit. The essentials of an internal audit are mentioned as under:

a. Independence and Integrity

Independence of the internal auditor is vastly different from that of the external auditor. Internal auditors should be independent in terms of bias or undue influences, organizational status and personal objectivity, which permit the proper performance of duties and provide decision-able recommendations and findings. The reporting framework of internal auditors should also be reminiscent of the individualistic and consultative nature of the activity.

Along with due independence, the internal auditor needs to depict certain personal and professional attributes which shall enhance the integrity and acceptability of the report. These include but are not limited to: honesty, sincerity, impartiality, business acumen, effective communication skills, and should try to maintain arm's length from all organization's members.

b. Terms of engagement

The Terms of Engagement of an internal audit team means to accept an internal audit assignment for an organization post agreement of the activities to be undertaken and formalizing all preconditions of the internal audit. The Terms of Engagement are a common understanding of the terms of reference for the internal audit between the internal audit team and management of the organization. These common understandings have been specified in further detail later on.

c. Strategy and approach

The internal audit strategy describes the role of internal audit within the organisation's overall assurance processes and provides an important link between the internal audit charter and the detailed internal audit work plan. It is expected that the strategy will set out:

- the organisation's assurance requirements and the contribution of the internal audit function to that assurance over the period covered by the strategy;
- the broad details of the audit, audit support and non-audit activities that internal audit will undertake; and
- the proportion of resources that will be devoted to the different types of activities that will be undertaken.

The period covered by the strategy can vary, but would normally cover a three to five year period and be reviewed at least annually.

d. Planning of internal audit

Internal audit function aligns focus and activities to the organisation's risks. To achieve alignment between the organisation's risks and internal audit coverage, it is imperative that internal audit planning to occur in the context of company-wide assurance mapping, which can be commissioned by the Audit Committee. Within this context, internal audit planning generally involves a detailed work plan, prepared on an annual basis. To provide context, the work plan might be supported by a schedule of potential audits and an indication of previous audit coverage. This document serves the purpose of setting out in strategic and operational terms the broad roles and responsibilities that are included in the internal audit charter and identifying key issues relating to internal audit capability, such as required skills.

e. Staffing and Training

The internal audit should be headed by a person who has substantial exposure to the working of the industry that the company is involved in and also possesses the requisites knowledge of compliances to be adhered to. He or she should be able to plan, direct, control, motivate and organize resources and deliver on timelines to ensure the responsibilities of the internal audit unit are met.

It is important to analyse the budget and time constraints along with the scope and audit plan to determine the appropriate background, skills and competencies that would be required by the internal audit team. An internal audit team requires both technical and soft skills to undertake a smooth internal audit function. The team needs to display a variety of skill levels, qualifications and technical know-how.

It is the responsibility of the organisation to ensure that the internal audit team has accurate knowledge of the organisation's structure and peculiarities related to its functioning. If required, the internal audit team may have to undergo specific trainings to meet the basic objectives of the audit and assess operational risks. Just as the external auditors, the internal auditor should keep abreast of current developments, improvements, new techniques and practices in internal auditing to properly equip him for any unique challenge he may encounter during this rigorous audit process.

f. Evaluation of Internal Systems and Risk Assessments

Internal Audit entails a through systems analysis and audit. Internal audit establishes appropriate criteria to determine whether the controls are adequate and assist in achieving the objectives of the system. The stages of a systems audit would normally be:

- Identification of systems and procedures
- Ascertaining control objectives
- Defining control mechanisms to be implemented
- Reviewing the changes to be implemented to adhere to controls
- Implementing new controls and monitoring their performance and adequacy
- Providing a formal opinion on audit objectives and adequacy of control mechanisms

Internal Audit establishes standards and provides guidance on obtaining an understanding of the accounting and internal control systems and on audit risk and its components:

- inherent risk,
- control risk and
- detection risk.

The auditor should assess audit risk and to design audit procedures to ensure that the risk is reduced to an acceptably low level.

g. Evidence and Analytical Procedures

The recommendations, findings and comments of the internal audit report should all be based on and supported by appropriate and adequate audit evidence. Evidence should cover all activities checked and controlled by the audit plan with specific notes for possible errors, their materiality and risks of occurrence. An internal auditor should obtain the evidence considered necessary for the achievement of the internal audit assignment objectives. The level of detail required for this evidence depends on the objective and scope of the audit, scale of misstatement or level of risk, cost and time involved in obtaining the evidence and finally reliability of the evidence. Reliance on evidence can be satisfied with its nature, extent, adequacy, consistency and relevance to the internal audit assignment and with the methods governing its collection.

h. Report Writing, Presentation and Follow-up

The internal audit report must be written after careful review and analysis of the various audit evidences, notes on internal control systems and risk assessments undertaking during the audit. In case internal auditors come across any fraud or misrepresentations or misappropriations, they have to be reported to the organisation's management or Audit Committee. The internal audit report provides a formal platform to the internal audit team to share its findings, recommendations and comments to the management. The internal audit report should recommend actions for performance improvement and control, and formal records for areas wherein audit was undertaken.

The format and schedule for sharing of the internal audit report presentation should be agreed with the management prior to augment of the assignment. All functional managers should be communicated the audit findings related to their respective areas and final list of actionable decisions must be shared by appropriate management representatives to enable them to take informed decisions. Once, the management has provided for suitable consideration to the internal audit report, the decision points and thereby the recommended actions to be undertaken must be formally recorded along with clear statement of responsibility for completion of assigned tasks.

1.5 Internal Audit Strategy and Approaches

Due to operational peculiarity of the Mining Industry and technicality involved in the day to day activities of the Organization Internal Audit Strategy as well approach needs careful planning ab-initio. Therefore the Internal Audit team shall comprise of Commercial and Techno experts from their respective fields like CMAs/CAs, Geologists, Mining and QC Engineers etc., as the routine operations involve Site inspection to Quantity surveying, estimations, Overburden removal estimation/expenditure, Stock valuation, quality inspection etc.

The Audit strategy and approach depends up on the client organization requirement and its Pre-analysis of Operations. To strike a balance in this activity an Internal Auditor ought to know certain fundamental aspects of the Industry and few facts to understand the Overall scenario and for effective auditing and giving Value addition to the given assignment.

The internal audit strategy describes the role of internal audit within the organization's overall assurance processes and provides an important link between the internal audit charter and the detailed internal audit work plan. It is expected that the strategy will set out:

- the organization's assurance requirements and the contribution of the internal audit function to that assurance over the period covered by the strategy;
- the broad details of the audit, audit support and non-audit activities that internal audit will undertake; and
- the proportion of resources that will be devoted to the different types of activities that will be undertaken.

The period covered by the strategy can vary, but would normally cover a three to five year period and be reviewed at least annually.

There are several different approaches to Internal Audit. International best practice suggests that systems audit is the most effective way that Internal Audit can add value to an organization. However, it is considered necessary for Internal Audit to complement systems audit with a pre-audit approach. If a pre- audit approach is adopted the Head of Internal Audit, the Audit Committee and the CFO/CEO should discuss the extent that this is necessary. They should also consider suitable means of reducing the proportion of time that Internal Auditors spend on pre-audit work.

The systems approach to Internal Audit seeks to assess and improve the effectiveness of the organization's internal control system.

The prime purpose of a systems Audit should be to evaluate the extent to which the system may be relied upon to ensure that the objectives of the system are met.
Where internal controls are not adequate and reliable Internal Audit should make practical recommendations to ensure that these controls are improved.

Internal Audit evidence should be adequate to meet the objectives of Audit assignments.
Internal Auditors should be satisfied with the nature, adequacy and relevance of Audit evidence before placing reliance on that evidence. Information should be collected analyzed and documented by the use of appropriate Audit techniques.

The production of Audit evidence should be supervised and reviewed by the Head of Internal Audit. To meet an acceptable standard the evidence should be sufficiently adequate and convincing to the extent that a prudent, informed person would be able to appreciate how the Auditor's conclusions were reached.
Internal Audit may also complement its systems approach with other techniques, for example:

- Performance auditing
- Control self-assessment

- Advice and assistance on control issues
- Helping with risk management.

Conclusions are the Internal Auditor's evaluations of the effects of the findings on the particular system reviewed. They should:

- Put the findings in perspective based on the overall implications and significance of the weaknesses identified
- Identify the extent to which the system's control objectives are being achieved and the degree to which the internal control systems should ensure that the goals and objectives of the organization are accomplished efficiently.

Management should be required to respond in writing to each Internal Audit report.
Management and Internal Audit should agree officer responsibility and target dates for implementation of agreed recommendations. The responsibility for final editing of Audit reports should remain with the Head of Internal Audit who should always retain the right to issue reports without further editing.

Follow-up activity is the process by which Internal Audit confirms that agreed recommendations have been implemented by line managers. Internal Audit should periodically follow up Audit reports to review and test the implementation of agreed Internal Audit recommendations.
The Head of the Internal Audit should submit to the CFO/CEO and Audit Committee, at agreed intervals, a report of Internal Audit activity and results. The report should compare actual Internal Audit activity against the annual Internal Audit plan and should clearly indicate the extent to which the total Internal Audit needs of the public sector organization have been met.

In the annual Internal Audit report the Head of the Internal Audit should give a formal opinion to the CFO/CEO and Audit Committee on the extent to which reliance can be placed on the organization's internal control system. The attention of the CFO/CEO and Audit Committee should be drawn to any major Internal Audit findings where action appears to be necessary but has not been undertaken.

A. Strategies to Internal Audit

As mentioned above, the Internal Audit strategy acts as a link between the internal audit charter and the work plan. An internal audit strategy helps in focusing internal audit effort, where it is most useful and effective. The time and resources involved in developing the internal audit strategy should be commensurate with the size and complexity of the organization and should also align with the organization's strategic decision. To analyze the internal audit strategy in further detail, it is necessary to understand its purpose, contents of a good strategy and the methodology for development and selection of internal audit strategy.

a. Purpose of Internal Audit Strategy

An Internal Audit Strategy is based on the aim and scope of the internal audit. An internal audit strategy helps in:

(i) A bird's eye view of the overall governance, risk management and control system of the organization,

(ii) Focusing the internal audit effort where it is most useful and effective, keeping track of the budgeted time and cost,

(iii) Minimising repetition and eliminating duplication of assurance effort,

(iv) Ensuring that there are no gaps in the internal audit function and the entire spectrum of control system is analyzed,

(v) Identifying the requisite skills, resources and specializations to deliver an efficient internal audit function,

(vi) Providing a reference point and setting up the basic framework for performance appraisal of all functions

(vii) Assessing risk and identifying steps and procedures to mitigate risk.

(viii) Introducing a culture of continuous improvement and enhancing feedback by formalizing the communication channel.

b. Contents of a good of Internal Audit Strategy

The basic structure of the Internal Audit Strategy will be based on the type of audit being undertaken, expectations of the Audit Committee and management, and finally the size and nature of the Internal Audit function. The precise format and contents would, hence, vary from one organization to another. However, any internal audit strategy would benefit by incorporating the following:

(i) A brief description of the approach of internal audit selected in developing the strategy and a list of key managers who approved the strategy;

(ii) A summary of the organization's short, medium and long term strategic mission and objectives or KPIs (Key Performance Indicators) to be targeted;

(iii) A short summary on the organization's prima facie risks (both external and internal);

(iv) A description of the industry that the organization operates in and positioning of the organization in comparison to the industry standards;

(v) A general SWOT analysis of the organization banks on to deliver commitments and sustain growth;

(vi) An estimate of the financial, operational, sales, and human resources budgets and targets over the period of the strategy;

(vii) The parameters of time, effort and costs considered to formulate the internal audit work plan;

(viii) The allocation of resources to the Internal Audit function along with the time lines for delivery;

(ix) The balance of various types of internal audits to be undertaken along with the approved audit scope;

(x) The frequency, distribution and level of detail in the internal audit report;

(xi) The details of function-wise and SBU-wise KPI and KRA (Key result areas);

(xii) The formal procedure for review and update of internal audit strategy.

c. Development and selection Internal Audit Strategy

As mentioned above, the time and resources involved in developing the strategy should be commensurate with the size and complexity of the organization, and have regard to the organization's risk profile and the maturity of the organization's risk management processes. The process would also be expected to be consistent with the organization's usual business planning processes. In developing the strategy, consideration would normally be given to the following factors:

i. The organization's Internal Audit objective and business strategy

The organization's Internal Audit objective will determine the strategy to be undertaken. The strategy may have to involve multiple and varied expectations of the audit committee and management and helps communicate the direction internal audit intends to pursue over the life of the plan. These expectations or targets may often include staff training and development, analyzing risks and developing mitigation strategies, reviewing the internal control systems, improving audit and other processes, introducing new technologies or enhancing performance measurement and appraisal.

In order to deliver the an effective internal audit report, the strategy must align with the organization's strategic direction and demonstrate a good understanding of the goals, objectives and priorities of the organization as set out in corporate and business plans. Such a statement also provides a focus to develop and prioritize management strategies and tasks designed to achieve those objectives. Business objectives can vary considerably, but often include matters relating to the quality, cost-effectiveness and nature of the audit and other services provided by internal audit designed to meet the organization's needs. The service delivery model in place will also influence, and be influenced by, the management strategies adopted.

ii. The Internal competencies of the organization

The Internal Audit Strategy would be largely influenced by the demography and size of the organization and its resources. The strategy plans will vary for organizations with different levels of financial, operational, and human resource capabilities. The size and skill level of the internal audit team is also to be considered when developing the strategy. The coverage area should be commensurate with the size and ability of the team else meeting deadlines would be difficult and could severely hamper the quality of the final internal audit report.

iii. The external factors affecting the organization

The internal audit strategy is generally developed after considering government policy, economic and social conditions and the expectations of external stakeholders such as vendors, customers, government, public agencies and competitors. External sources for management information and data collection include reports from Parliamentary Committees, central agencies, industry regulators, independent reviewers; rating agencies and external consultants help ascertain threats and opportunities which should be considered as part of developing the internal audit strategy. The expectations of external stakeholders to whom the organization has a reporting requirement such as Institutional Investors must also be involved. All of these factors together influence the internal audit strategy and must be continuously monitored to ensure no opportunity is missed and no major risk adversely affects the organization's performance.

d. The organization's risk structure and mitigation plan

The organization's current and future risk profile will also be an important influence on the internal audit strategy. Provided the company's risk identification process and risk management framework is mature, its risk management plans will be a key source of information in developing the internal audit strategy. In case the organization does not have a formalised risk assessment and management framework, one of the initial steps incorporated in the strategy would be to formulate and setup the risk management team and plan. The organization's current and future risk profile would also influence on the types and level of internal audit activity.

In certain situations where the company does not have a mature risk management framework, internal audit will need to develop and modify the existing risk management structure after discussion with the Audit Committee and the senior management of the organization. The risk management structure will provide a base for mitigation of both internal and external risks.

c. Assurance and review of internal control systems

In certain situations where the company does not have a mature risk management framework, internal audit will need to develop and modify the existing risk management structure after discussion with the Audit Committee and the senior management of the organization. The risk management structure will provide a base for mitigation of both internal and external risks.

d. Mapping the Internal Audit coverage

Organizations are increasingly noticing the benefit in conducting an assurance mapping exercise. This consists of an analysis of the significant risks facing the organization and the extent to which each of the various assurance elements addresses these risks. Such an exercise can be a very useful way of obtaining a broad organization-wide perspective of the assurance landscape, assist in demonstrating an alignment between the organization's risks and the proposed assurance coverage, highlight organization risks that are not being addressed by the assurance program and assist in identifying any gaps or duplication. The internal auditor uses these assurance maps to develop an overall opinion on the organization's control environment. Thus, it is important that internal audit coverage complements, rather than duplicates other assurance and review activities. An assurance map assists internal audit to identify any gaps or duplication and to develop its work plan, to develop its work plan and to assist the Audit Committee in undertaking the assurance mapping process. Examples of possible themes include governance, policy and strategic planning, program and project management, client relationships, financial, human resources and information technology systems.

e. Budget Consideration

As a matter of principle, the internal audit strategy should first address all the activities that internal audit, the Audit Committee and other stakeholders consider should be included, before reflecting on the possible budget available. However, in case the expectations far exceed the approved budget, the internal audit function can request for an updated budget.

The size of the investment the company wishes to make in internal audit would normally be determined by the Board on the advice of the Audit Committee and multiple factors would be considered before finalization. The internal audit strategy should outline the issues that will be considered in the development of internal audit work plans and should address the achievement of the appropriate level of coverage and the prioritization of reviews.

f. Management Expectations

It is important to obtain the views of management about their expectations of the internal audit function. Thus, it can be expected that management could have differing expectations of internal audit and its focus and priorities. In these circumstances, it is important for internal audit function to work through the different perspectives and have follow-up discussions, as required, to ensure that the role of internal audit outlined in the internal audit strategy considers the views similar to that of the management. In its consideration of the strategy, the Audit Committee should be made aware, at least in broad terms, of the views of key stakeholders, particularly if they are not reflected in the document presented.

Generally good Internal Audit function will evolve long term strategy to bring in effective Internal Audit by adding new areas and more detailed analysis year after year as, it may not be possible always to implement everything from very first year.

B. Approaches to Internal Audit

An internal audit will involve a combination of audit approaches and techniques. These include interviews, document reviews, sampling, testing of controls, and analysis of transaction, processes and management information. The audit approaches selected should be the most time and cost- effective given the objectives and scope of the audit. The aim is to collect sufficient, reliable, relevant and useful evidence to enable the internal auditor to come to well-founded conclusions about the program or activity under review and to make appropriate recommendations. Decisions will have to be made at each stage of the internal audit regarding the need for specific testing, data collection and analysis and the extent that reliance can be placed on work of other internal or external reviewers. There are several types of internal audits. There are financial audit, operational audit, management audit, compliance audit, IS audit, Cost Audit and investigation audit. Each audit has different purpose and characteristic.

a. Financial Audit

The purpose of financial audit is to express opinion on financial condition based on analysis, comparisons and test of accuracy. Its scope is on the financial records. The results or comments expected from the audit are to give opinion on the accuracy and reliability of the financial statements.

b. Operational Audit

The purpose is to analyze and improve methods of operations and performance of a unit or department. The results or comments expected from the financial audit are to give recommendations to management for the improvement of operations.

c. Management Audit

The purpose is to review and evaluate business and management issues to enhance profitability. Its scope is on the business support activities of a unit or the entire organization. The results or comments expected from the audit are to give opinions on strategic issues and recommendations or solutions.

d. Compliance Audit

The purpose is to express opinion as to adherence to internal policies and regulatory rules and requirements and applicable laws relating to the specific aspects of operations and business. The results or comments expected from the audit are to make immediate rectification and compliance thereafter.

e. IS Audit

The purpose is to audit on the computer systems and the provision and management of information. Its scope is on the technical reviews on computer systems and their peripherals. The results or comments expected from the audit are to give recommendations on computerization and information systems related.

f. Investigation

The purpose is to audit in depth irregularities such as misappropriation of bank's assets or reported fraud or allegations. Its scope is in the area specified to determine modus operandi. The results or comments expected from the audit are to give conclusion to findings with recommendations to prevent recurrence. These types of audits are also undertaken on specific assignment basis by specialized internal audit teams.

In addition to these general approaches, the Institute of Internal Auditor's Research Committee also shortlisted the following five "Value Added Approaches" to internal audit function. These approaches were accepted as basis for identifying emerging focus areas in which internal auditors could add value using non-traditional and innovative approaches. A brief description of each value addition approach follows.

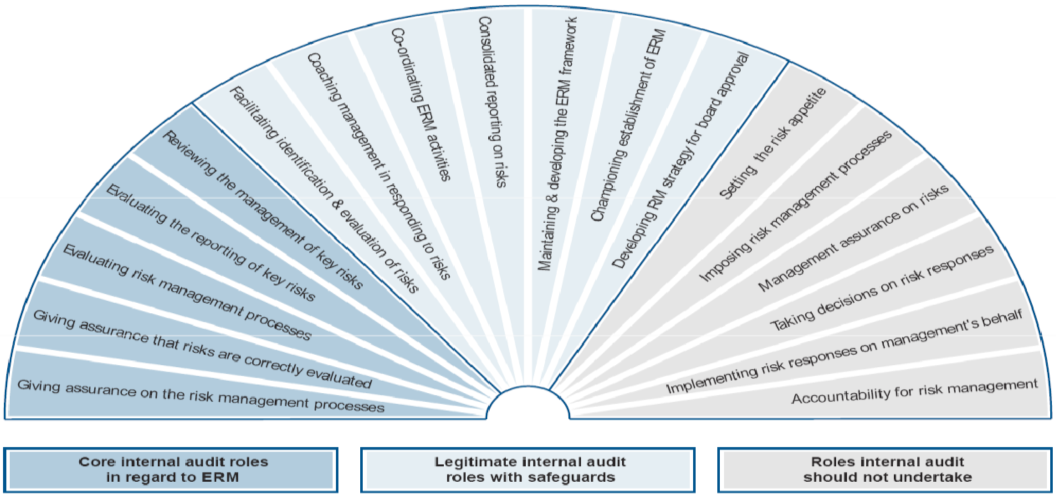
g. Project Management

Project Management Audit is the list of activities performed by the internal audit function for the organization's project management initiatives. Some organizations do not have a dedicated Project Management Office (PMO) or Project Management (PM) framework. Internal audit's engagement may include the following types of activities:

- Plan-Do-Act-Check process determination
- Process information flow
- Monitoring and Controlling project resource allocation process
- Project Risk Management

h. Enterprise Risk management (ERM)

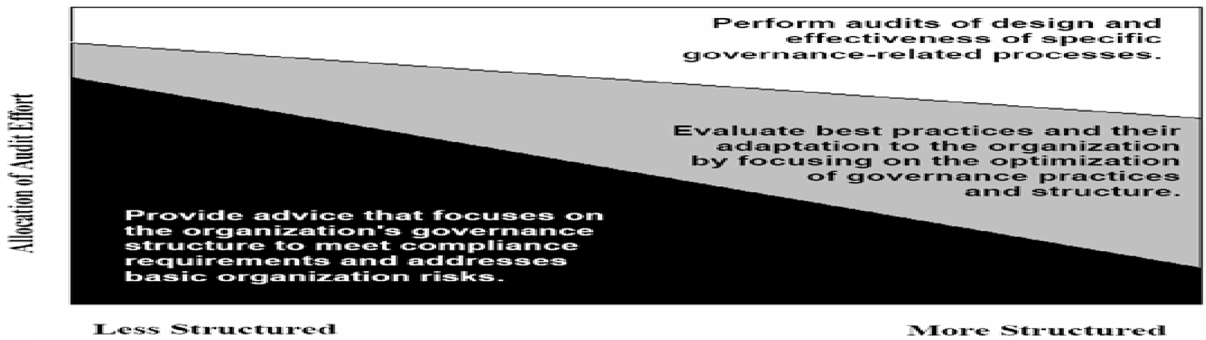
ERM is generally referred to the methodology implemented by organizations to strategically confront risks and leverage opportunities by implanting risk awareness into the strategy planning and implementation process. ERM is different from internal audit risk assessment as it aims to achieve broader initiatives of connecting risks to strategic objectives, developing risk response mechanisms, and managing risk to within risk taking ability of the enterprise. The Internal audit function is involved in a number of ways in risk management process in line with general guidelines stating the acceptable roles internal audit team can take on with respect to ERM. The figure below helps determine the extent to which internal audit function can support ERM implementation for an organization.



Internal Audit Roles

i. Corporate Governance

Corporate governance was first formally introduced in England by Kraft Foods Inc. founder James L. Kraft. It is defined as the system of rules, practices and processes by which a company is directed and controlled. Corporate governance essentially involves balancing the interests of the many stakeholders in a company - these include its shareholders, management, customers, suppliers, financiers, government and the community. The Internal audit function plays a significant role in assisting the company's management with corporate governance. The type of activities performed by internal audit can typically be related to the maturity of the Governance Model in the organization, as the IIA's "Internal Audit Governance Maturity Model" shows in the figure below:



Internal Audit Governance Maturity Model

j. Social audits

Strategy audit generally comprise of two major activities namely; accurately assessing the strategy setting process with control measure and comparing the direction of the business to the planned direction as outlined in the strategic plan. The definition of business strategy is a long term plan of action designed to achieve a particular vision or set of goals or objectives. The internal audit function can add value through strategy audits and emerge as a key consultant who advises the management and the board on the risks and controls that impact achievement of strategic objectives and value creation.

k. Strategy Audits

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1.6 Terms of engagement of Internal Auditor

As per section 138 of the Companies Act 2013, Internal Auditor to be appointed may be Cost Accountant, Chartered Accountant or such other professional as may be decided by the Board of the Company.

In case of Assignment basis of Internal Audits:

Terms of Engagement of an Internal Auditor mainly depends on the Scope of Work, Volume of Operations, staff to be engaged, Geographical locations of the assignment to be undertaken besides the guidance and specific assignments needs to be attended. However, Internal Auditor shall keep in mind the following:

The internal auditor and the auditee should agree on the terms of the engagement before commencement. The agreed terms would need to be recorded in an engagement letter. Normally, it is the responsibility of the internal auditor to prepare the engagement letter and it is to be signed both by the internal auditors as well as the auditee.

Internal Audit's terms of reference (or charter) should clearly outline the nature, objectives, responsibilities and scope of Internal Audit. Internal Audit's terms of reference should be approved by the Audit Committee subject to applicable legislation.

The written terms of reference for Internal Audit should clearly:

- establish Internal Audit's position within the organization,
- establish Internal Audit's right of access to all records (both electronic or otherwise), assets, personnel and premises, and its authority to obtain such information and explanations, as it

considers necessary to fulfill its responsibilities ,

- define the scope of Internal Auditing activities.

Objectivity is an independent attitude of mind that Internal Auditors should maintain when performing Internal Audit work. It is important that Internal Auditors always retain a critical edge in undertaking their work. Internal Auditors need to be skeptical in discussions with CFO/CEO and to obtain an adequate level of proof from Audit testing.

Objectivity requires Internal Auditors to carry out Audits in such a way that the quality of their work or their honest belief in the results of that work is not compromised.

Internal Auditors should not be placed in situations in which they feel unable to make objective and impartial professional judgments. If any of the situations referred to below arise, Internal Auditors should inform their Head of Internal Audit so that alternative arrangements for the Internal Audit assignment may be made:

(i) Internal Auditors, notwithstanding their employment by the organization, should be free from any conflict of interest arising either from professional or personal relationships or from pecuniary or other interests in an organization or activity that is subject to Audit.

(ii) Internal Auditors should be free from undue influences, which either restrict or modify the scope or conduct of his work or overrule or significantly affect judgment as to the content of the Internal Audit report.

(iii) Internal Auditors should not allow their objectivity to be impaired when auditing an activity for which they have had authority or responsibility in the past.

(iv) Internal Audit should be consulted about significant proposed changes to the internal control system or the implementation of new systems. Internal Audit may make recommendations on the standards of control to be applied without prejudicing Internal Audit's objectivity in reviewing those systems at a later date.

(v) Internal Auditors should not normally undertake non-Audit duties, but if they do, exceptionally, they should ensure that management understands that they are not then functioning as Internal Auditors.

(vi) International best practice suggests that Audit Committees should be established.

Audit Committees are generally considered to improve the independence of Internal Audit. Members of an Audit Committee, 6 especially the chair, should be chosen so that they are sufficiently independent from the senior managers of the public sector organization and so they are suitably experienced. An Audit Committee may deal with more than one organization.

The role an Audit Committee with regard to Internal Audit is that it should:

- approve Internal Audit's strategic and operational plans and review performance against them.
- discuss with Internal Audit its findings and the responses of management to its major recommendations; and, periodically, its views on the overall quality of internal control.

- consider the objectives and scope of any additional (non-audit work) work undertaken by the Internal Auditors to ensure there are no conflicts of interest and that independence is not compromised.
- review the adequacy of the Internal Audit function, its adherence to professional standards, particularly independence, standing, scope, resourcing, its liaison with the Auditor.
- general and other review agencies and its reporting arrangements.
- meet regularly two or three times a year and meet with the Internal Auditors at their request as they deem necessary.
- be involved in the process of appointment or dismissal of the Head of Internal Audit.
- periodically review the Internal Audit terms of reference.

The key stakeholders of Internal Audit

The internal audit team must have the confidence and trust of the key stakeholders it works with and be seen as a credible source of assurance and advice. This confidence should not be assumed and can only be established and maintained by having effective working relationship, by delivering high-quality and timely advice and internal audit reports that are seen to be contributing directly to assisting the organization to meet its responsibilities. The key stakeholders of internal audit are:

a. Chief Executive
b. Board of Directors
c. Audit Committee
d. Senior management
e. External auditor
f. Other reviewers

It is important that details of these relationships are formalized in documents such as the internal audit charter or the Audit Committee charter; good relationships also need to exist at a practical working level to be effective. The importance of these individual relationships is analyzed below:

a. Chief Executive

While internal audit reports functionally to the Audit Committee, it is important that the Head of Internal Audit has direct access, as and when required, to the Chief Executive. Organizations today, recognize the advantages in making the Head of Internal Audit directly accountable to the Chief Executive. This not only sends a clear signal about the importance of the internal audit function, it also facilitates regular contact between the Chief Executive and internal audit. This should not be seen as diminishing the role of the Audit Committee, which still advises the Chief Executive on governance issues, but as ensuring unimpeded communication, when required. This contact should be used as an opportunity for internal audit to gain insights into new and emerging risks and issues facing the organization and to discuss the role the Chief Executive expects internal audit to fulfill in the company.

b. Board of Directors

The Head of Internal Audit may formally report to the Board of Directors on the effectiveness of the internal audit function. As the Audit Committee is usually a sub-committee of the Board, this responsibility is often delegated to the Audit Committee. Although the Head of Internal Audit may meet with the Chair and members of the Audit Committee, some Boards periodically meet with the Head of Internal Audit to exchange views and ideas. As a minimum, it is important that the Head of Internal Audit has direct access to the Chair of the Board and the Chief Executive, as and when required.

c. Audit Committee

Audit Committees play an integral role in the governance framework of organizations. Audit Committees assist Chief Executives and Boards to understand whether key controls are appropriate and operating effectively. In this respect, the relationship between internal audit and the Audit Committee is crucial and has a number of dimensions which are mentioned below:

a. Advise the Chief Executive about the internal audit plans of the organization;
b. Direct or Coordinate work programs relating to internal and external audits;
c. Review the content of internal [and external] audits to identify significant matters of concern, and to advise the Chief Executive on good practice or opportunities for improvement;
d. Review the adequacy of responses to reports of internal and external audits;
e. Endorse the internal audit charter and be responsible for either reviewing and approving internal audit plans, or recommending their approval by the Chief Executive/Board of Directors;
f. Act as the internal audit function's primary client and form a sound professional relationship with the internal audit team as a whole and each of its members;
g. Utilize internal audit reports and its general interaction with the Internal Audit team, to assess the effectiveness of controls and the performance of the organization and
h. Utilize the internal audit function to undertake secretariat compliance

Given this relationship, it is important that both formal and informal lines of communication be maintained between internal audit and the Audit Committee and with individual committee members, particularly the Chair. Audit Committee members should be in a position to be able to openly discuss matters of interest with the Head of Internal Audit. In doing this, committee members must be confident that such discussions will be treated in confidence by internal audit.

It is generally accepted that the Head of Internal Audit, will attend Audit Committee meetings unless there are exceptional circumstances requiring them to be excluded for a particular agenda item. It is also good practice for the Audit Committee to meet privately with the Head of Internal Audit from time to time to ask questions and to seek feedback from internal audit without management being present. This practice also supports the independent role of internal audit.

To assist the Audit Committee in its monitoring responsibilities, internal audit should report to the committee on a regular basis on the status of the internal audit work plan. This report should also provide details of audit activity against planned audits, together with explanations of any significant variations. Internal audit should provide an annual report in an agreed format to the Audit Committee on its achievements and on the use of its resources.

Audit Committees may formally review the performance of internal audit on an annual basis and take an external review of the organization's internal audit arrangements every five years or so. Internal audit should also report regularly on the status of management's actions to implement agreed internal and external audit report recommendations.

Internal audit functions increasingly are providing Audit Committees and Chief Executives with periodic reports on the patterns, trends and systemic issues identified as a result of internal audit activities.

d. Senior Management

To effectively fulfill its responsibilities, it is important that internal audit has a professional and constructive relationship with senior management of the organization.

Internal auditors should interact on a regular basis with members of the senior management team, and through the delivery of practical, business-focused and useful reports and advice, build a relationship that is based on cooperation, collaboration and mutual respect. Meetings with organization managers should be used as an opportunity to be briefed on key business developments and associated risks facing the organization. These meetings should also be used to obtain informal feedback about the performance of internal audit and to assist in identifying ways that internal audit can best assist organization management. One measure of the effectiveness of internal audit is the extent to which managers seek out internal audit to assist them in managing their business. Thus, internal audit team would encourage managers to seek their advice and assistance on either an informal or formal basis as the need arises.

In interacting with management, internal audit must be privy to information that may affect professional and, at times, personal reputations. It is important that internal audit respect the confidentiality of such information and its communication to others be on a strictly need to know basis. In situations where managers consider that such information is being used inappropriately, the reputation and credibility of internal audit is likely to be damaged.

e. External Auditors

External auditors too must help in developing internal audit strategy and internal audit work plan. Both audit teams need to address the key financial and business systems underpinning the company's financial statements and to avoid duplication of compliance and assurance. To avoid such duplication, the external auditor must evaluate the work of internal audit function to determine its adequacy for external audit purposes. The Internal audit function can be made responsible for liaising with external auditor on behalf of the organization. Such a role can be a useful way for internal audit team to be aware of planned and actual external audit coverage. Thus, a constructive relationship between both set of auditors assists in the conduct of external audits. The Internal audit function may also be assigned the role of assisting the Audit Committee to assess the service provided by external audit. Such a role can only be fulfilled when there is health communication between internal and external audit teams. This can be achieved by setting up formally establish meetings between internal and external audit to allow for routine exchange of information.

f. Other Reviewers

Internal audit is one of a number of internal and external review and assurance activities that exist as part of an organization's governance arrangements. The company shall benefit when all these activities, such as those performed by the Ombudsman and regulators, operate in a coordinated and complementary manner to the greatest extent possible. This requires regular formal and informal contact between review bodies to minimize duplication and overlap. Some organizations see benefit in protocols being formalized for such activities: providing, for example, for the regular exchange of views and information and for the reporting of the results of work undertaken in a coordinated manner.

Protocols can be particularly important in situations where internal audit needs to work closely with other entities as a result of inter-agency or other agreements.

1.7 Independence of Internal Auditor

Independence of the internal auditor in general terms means independence from the influence of management of the company. Many Companies have code of conduct prescribed for Internal Audit as well as Code of Ethics to be maintained under the Company policy frame work. However an Internal auditor needs independence from the involvement of various stakeholders like Suppliers/Vendors, Clients and other interested third parties. An internal auditor has to keep in mind these procedural aspects and their adherence in day to day activities of the audit operations for effective discharge of duties. Internal Audit is an independent function and internal auditor shall report (normally) to the Board and is a permanent invitee to the Audit Committee meetings of the Company.

Independence of an Internal Audit team helps to distinguish it from all other internal controls, systems and procedures. The Internal Audit function is not subject to the authority of the areas of the organization that it audits. Thus, 'operational independence' is ensured and the entire exercise is objective, impartial and free from any conflict of interest, inherent bias or undue external influence. Although the internal audit function is independent in its working, it provides a service to the management, reports to the Audit Committee and is ultimately accountable to the Chief Executive or the Board for the achievement of its set objectives and the utilization of resources.

A conflict of interest can create an appearance of impropriety that can undermine confidence in the internal auditor and the internal audit function. A conflict of interest could impair an individual's ability to perform his or her duties and responsibilities objectively. If independence or objectivity is impaired in fact or appearance, the details of the impairment must be disclosed to appropriate parties. The nature of the disclosure will depend upon the impairment. Impairment of organizational independence and individual objectivity may include, but is not limited to, personal conflict of interest, scope limitations, restrictions on access to records, personnel, and properties, and resource limitations, such as funding. To ensure operational independence of internal audit function, certain measures need to be undertaken by the management. A general list is given below:

a. The internal audit function must report directly to the Audit Committee
b. The lead internal auditor must have direct access to the Chairman of the Audit Committee and the Board of Directors

c. Regular meetings must be held between the lead Internal auditor and the management
d. Any external consultants approached by the internal audit function must be validated by the management
e. The internal audit charter should not include any activity which may be or lead to a conflict of interest.

The above mentioned steps helps the internal audit function maintain objectivity and undertake judgment based purely on tangible evidence devoid of influence.

1.8 Pronouncements on Internal Audit

The compliance with the laws of the home country as well as the laws of the foreign country land for existence of businesses in India and abroad is a critical factor. As per the legal obligation / requirement under different statutes in India and abroad a Company shall have internal audit of its accounts carried out, at such interval and in such manner as may be specified .

Clause 49 of Listing Agreement: Corporate Governance (SCRA)

In case of the listed companies as per the Clause 49 of Listing Agreement the audit committee should be reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure, coverage and frequency of internal audit.

The Companies Act 2013

Under Section 177 of the Companies Act 2013 the internal auditor, if any, shall attend and participate at meetings of the Audit Committee of the company.

The provisions for constitution of the Audit Committee under Section 292A of the Companies Act 1956 has been replaced by Section 177 of the Companies Act 2013, which are as follows:

177. (1) The Board of Directors of every listed company and such other class or classes of companies, as may be prescribed, shall constitute an Audit Committee.

(2) The Audit Committee shall consist of a minimum of three directors with independent directors forming a majority:

Provided that majority of members of Audit Committee including its Chairperson shall be persons with ability to read and understand, the financial statement.

(3) Every Audit Committee of a company existing immediately before the commencement of this Act shall, within one year of such commencement, be reconstituted in accordance with sub-section (2).

(4) Every Audit Committee shall act in accordance with the terms of reference specified in writing by the Board which shall, inter alia, include,—

(i) the recommendation for appointment, remuneration and terms of appointment of auditors of the company;

(ii) review and monitor the auditor's independence and performance, and effectiveness of audit process;

(iii) examination of the financial statement and the auditors' report thereon;

(iv) approval or any subsequent modification of transactions of the company with related parties;

(v) scrutiny of inter-corporate loans and investments;

(vi) valuation of undertakings or assets of the company, wherever it is necessary;

(vii) evaluation of internal financial controls and risk management systems;

(viii) monitoring the end use of funds raised through public offers and related matters.

(5) The Audit Committee may call for the comments of the auditors about internal control systems, the scope of audit, including the observations of the auditors and review of financial statement before their submission to the Board and may also discuss any related issues with the internal and statutory auditors and the management of the company.

(6) The Audit Committee shall have authority to investigate into any matter in relation to the items specified in sub-section (4) or referred to it by the Board and for this purpose shall have power to obtain professional advice from external sources and have full access to information contained in the records of the company.

(7) The auditors of a company and the key managerial personnel shall have a right to be heard in the meetings of the Audit Committee when it considers the auditor's report but shall not have the right to vote.

(8) The Board's report under sub-section (3) of section 134 shall disclose the composition of an Audit Committee and where the Board had not accepted any recommendation of the Audit Committee, the same shall be disclosed in such report along with the reasons therefor.

(9) Every listed company or such class or classes of companies, as may be prescribed, shall establish a vigil mechanism for directors and employees to report genuine concerns in such manner as may be prescribed.

(10) The vigil mechanism under sub-section (9) shall provide for adequate safeguards against victimisation of persons who use such mechanism and make provision for direct access to the chairperson of the Audit Committee in appropriate or exceptional cases:

Provided that the details of establishment of such mechanism shall be disclosed by the company on its website, if any, and in the Board's report.

Section 138(1) of the Companies Act 2013 provides that such class or classes of companies as may be prescribed shall be required to appoint an internal auditor, who shall either be a chartered accountant or a cost accountant, or such other professional as may be decided by the Board to conduct internal audit of the functions and activities of the company.

Under SEBI Circular No. MRD/DMS/Cir-29/2008 October 21, 2008

Under SEBI Circular No. MRD/DMS/Cir-29/2008, October 21, 2008 in partial modification of SEBI circular No. MIRSD/ DPSIII/ Cir-26/ 08 dated August 22, 2008 on the above subject, the SEBI has mandated that stock brokers/trading members/clearing members shall carry out complete internal audit on a half yearly basis by chartered accountants, company secretaries or cost and management accountants who are in practice and who do not have any conflict of interest.

Under Circular of SEBI No. SEBI/MIRSD/CRA/Cir-01/2010 dated January 06, 2010 Internal Audit for Credit Rating Agencies (CRAs) has been prescribed under Regulation 22 of the SEBI (Credit Rating Regulations), 1999, which shall be undertaken on a half yearly basis and shall be conducted by Chartered Accountants, Company Secretaries or Cost and Management Accountants who are in practice and who do not have any conflict of interest with the CRA.

Under IRDA (Investment) (Fourth Amendment) Regulations, 2008

An Insurer having Assets under Management (AUM) not more than Rs.1000 Crore shall conduct a Quarterly Internal Audit to cover both Transactions and related Systems.

The Audit Report of the company shall clearly state the observation at transaction level and its impact, if any at System level. The Audit Report shall be based on Exception Reporting.

Corporate Responsibility for Financial Reports (Under Section 302 of Sarbanes Oxley Act of 2002).

(a) Regulations Required: The Commission shall, by rule, require, for each company filing periodic reports under section 13(a) or 15(d) of the Securities Exchange Act of 1934 [15 U.S.C. 78m, 780(d)], that the principal executive officer or officers and the principal financial officer or officers, or persons performing similar functions, certify in each annual or quarterly report filed or submitted under either such section of such Act that—

(2) the signing officer has reviewed the report;

(3) based on the officer’s knowledge, the report does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which such statements were made, not misleading;

(4) based on such officer’s knowledge, the financial statements, and other financial information included in the report, fairly present in all material respects the financial condition and results of operations of the issuer as of, and for, the periods presented in the report;

(5) the signing officers—

(A) are responsible for establishing and maintaining internal controls;

(B) have designed such internal controls to ensure that material information relating to the issuer and its consolidated subsidiaries is made known to such officers by others within those entities, particularly during the period in which the periodic reports are being prepared;

(C) have evaluated the effectiveness of the issuer's internal controls as of a date within 90 days prior to the report; and

(D) have presented in the report their conclusions about the effectiveness of their internal controls based on their evaluation as of that date;

(6) the signing officers have disclosed to the issuer's auditors and the audit committee of the board of directors (or persons fulfilling the equivalent function)—

(A) all significant deficiencies in the design or operation of internal controls which could adversely affect the issuer's ability to record, process, summarize, and report financial data and have identified for the issuer's auditors any material weaknesses in internal controls; and

(B) any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal controls; and

(7) the signing officers have indicated in the report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

(b) Foreign re-incorporations have no effect: Nothing in this section 302 shall be interpreted or applied in any way to allow any issuer to lessen the legal force of the statement required under this section 302, by an issuer having reincorporated or having engaged in any other transaction that resulted in the transfer of the corporate domicile or offices of the issuer from inside the United States to outside of the United States.

(c) Deadline: The rules required by subsection (a) shall be effective not later than 30 days after the date of enactment of this Act.

Management Assessment of Internal Controls (Under Section 404 of Sarbanes Oxley Act of 2002)

(a) Rules Required: The Commission shall prescribe rules requiring each annual report required by section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) to contain an internal control report, which shall—

(1) state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting; and

(2) contain an assessment, as of the end of the most recent fiscal year of the issuer, of the effectiveness of the internal control structure and procedures of the issuer for financial reporting.

(b) Internal Control Evaluation and Reporting: With respect to the internal control assessment required by subsection (a), each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer. An attestation made under this subsection shall be made in accordance with standards for attestation engagements issued or adopted by the Board. Any such attestation shall not be the subject of a separate engagement.

One of the primary functions of the internal audit team is to ensure adherence to internal policies and regulatory rules and requirements and applicable laws relating to the specific aspects of operations and business. Internal audit function has to include business improvement reviews, risk management processes, quality assurance arrangements and management control self-assessment arrangements. However, in addition, there are a number of external assurance and review bodies, including external audit, regulators, and the Ombudsman who are submitted various reports and assessments that need to reviewed.

The Internal Audit function must ascertain whether or not the organization has conducted its operations in accordance with the provisions of laws and regulations including the external reports and statements submitted through financial and cost records. The internal audit must obtain adequate and appropriate evidence to support the compliance or lack of it by the organization.

This evidence could be shared with the external auditors to ascertain whether or not accurate disclosures and reported amounts of financial statements are correct. The internal audit function has to identify any non-compliance and recommend modification or change to the internal procedure of compliance. In order to facilitate accurate identification of non- compliance, the internal audit team should develop an understanding of various Legal and Regulatory framework.

Certain organizations operate in regulated industries such as pharmaceuticals, banking, electricity, insurance, telecom and others. The internal audit team needs to understand all relevant policies, orders, rules and regulations to be complied with by the company. The Internal Audit function must take into account all aspects of business and compliance.

There are multiple regulatory requirements which need to be addressed and kept track of when undertaking internal audit. The Internal Audit function must have a checklist of all regulations to be followed and it must guide the management regarding the adequacy of compliance or the lack of it.

Chapter 2
Documentation and Working Papers

The Internal Audit function in Mining & Metallurgical Industry is a Task and unique in its nature at each operational and audit level of the organization as efficient and effective use of audit resources needs to strike a balance in between the priority operations of the Industry. Therefore careful audit plan coupled with the emerging needs of the organization, in the era of risk management may demand time bound and objective oriented assignments besides planned assignments for giving reasonable assurance on:

- Efficient and effective usage of available resources.
- Compliance of applicable Laws in the Industry/to the Organization.
- To mitigate the risks involved in operations and ensure to their minimum.
- To meet the objective of Corporate Governance practices etc.

To ensure the above factors, Internal Auditor needs a structured plan as regards to the following:

i) Assessment of staff skills and their grading/fit to the targeted assignments.
ii) Roll a plan and propose Annual Audit Calendar and Audit budget, bifurcated to the quarterly and half year plans ahead of the Financial Year in the Organization for getting necessary prior approvals of the authority, wherein the internal audit functions are discharged in house.
iii) Keep buffer audit staff to face emerging challenges and tasks assigned by Management from time to time for special or specific assignments.
iv) Training and orientation programmes and skills improvement workshops to the Audit staff as an annual feature. It is a new technique and approach in the Internal Audit function to ensure that an organization gets times of benefit when compared to the budget allocation made in the-organization to the Department. Of course like any other 'Service/cost functional activity' in an organization like HR/Finance, Quality assurance etc. Internal Audit is also a Service Function but at times acts as a Revenue savior when prevents or arrest frauds and keep controls in place.

Therefore keeping in view of the above factors, internal Auditor shall plan in advance and keep all the background data and working papers on both Commercial and technical aspects to operate all possible audit tools for getting better output, to suit the operations of the Company.

Examination of the following will be of utmost help to the internal auditor.

a. Organization chart
b. Process flow of the Operations
c. Approved Manuals Accounts, Materials etc.
d. Policies of the Company like Civil Works, Mining Policy, Labour Policy, Quality policy etc.
e. Delegation of Powers, Approved capital budgeting and other related guide lines, if any
f. Department wise Manpower, Operational sanctioned Budgets etc.
g. Brief note on the tasks specially assigned if any.

Need for Internal audit documentation

I. Aid in planning and executing the internal audit.

II. Aid in review of the internal audit work.

III. As evidence of work performed during the internal audit to support the internal auditor's opinion and findings.

IV. Assistance to third party while reviewing the internal auditor's work.

V. Can be used as evidence to verity that the internal audit was performed in accordance with the scope of work as mentioned in the engagement letter

The internal audit documentation should cover all the important aspects of an engagement viz., engagement acceptance, engagement planning, risk assessment and assessment of internal controls, evidence obtained and examination/ evaluation carried out, review of the findings, communication and reporting and follow up. In case the internal audit is outsourced, the documentation should include a copy of the internal audit engagement letter, containing the terms and conditions of the appointment.

Internal audit documentation should be designed in accordance with requirement of specific audit and properly maintained to meet the requirements and circumstances of each audit. All significant issues which require special attention, together with internal auditor's observation thereon should be appropriately included in the internal audit documentation.

Properly designed and maintained internal audit documentation enables the reviewer to understand:

a. the nature and extent of audit procedures performed applicable legal and regulatory requirements;
b. timings of the audit
c. the outcome of audit procedures and audit evidence obtained;
d. important issues arising during the course of audit and conclusions drawn; and
e. terms and conditions of an internal audit engagement, scope of work, reporting requirements and any other special conditions relating to conduct of the internal audit.
f. Record of the work performed.

Use of Working Papers as evidence

The internal audit Documents provide the evidence of the work of the internal auditor and are important in providing evidence to his opinion or the findings. Following are the advantages of having sufficient and properly maintained work papers:

(i) Assistance in the performance of the audit.
(ii) Forming basis of the auditor's observations/ findings in his report.
(iii) Providing information for the report.
(iv) Aiding the review and evaluation of the work done.
(v) Aiding cross referencing between audit evidence and decision taken by the internal auditor.
(vi) Providing record of work done

The internal auditor should formulate policies as to the custody and retention of the internal audit documentation within the framework of the overall policy of the entity in relation to the retention of documents and in accordance with the practices prevailing in the profession.

The Internal Audit Function has to record and share details of all assurances verified, area covered, internal control system checks and process changes recommended. There needs to be hard evidence collected and stored prior to sharing conclusions formed on the evidence. This evidence, observations, status reviews and check points need to be documented to increase reliability and prove effectiveness of the internal audit.

The term 'Documentation' has many meanings but the most relevant is; Documentation is the process of collecting, verifying and storing knowledge, observations, facts and systems in a set of data which may be tangible such as paper, flow charts, SOPs, etc. and intangible such as electronic, audio, video, etc.

The Internal Audit Documentation process begins with the Internal Audit Manual, which documents the policies and procedures for conducting audits and managing the internal audit function is important to:

a. encourage a consistent approach to achieve a quality result
b. assist new starters to understand the internal audit process
c. demonstrate an objective and systematic approach to the conduct of internal audits
d. provide a basis for review and to improve existing practices

The internal audit manual should be tailored to the needs of the internal audit function and would reflect the strategy and approach chosen. It would generally include policies and procedures for:

a. planning individual audit assignments;
b. evidencing compliance with professional standards and methodologies;
c. internal audit fieldwork and supervision;
d. reporting audit results and categorizing overall audit findings and audit recommendations;
e. servicing the Audit Committee;
f. assessing internal audit performance, including conducting client surveys;
g. records management and security procedures and
h. reviewing the manual.

The internal audit manual should provide local procedures consistent with applied standards for using diagrams, flowcharts and checklists that can help to generate a better understanding of the processes involved, while including references to templates and any planning and auditing tools assists in promoting the support available to audit teams. The manual may be an electronic document (for example, on an intranet site) that also includes links to electronic copies of other key documents to facilitate updating and access by internal audit staff as it is an important aid in assisting internal audit to produce high-quality audit reports that meet the expectations of management.

There are several types of internal audit documents. The internal auditor commonly use flowcharts supplemented by narrative descriptions as a starting point to understand the workings of the organization. Once the operational working of the organization is clear and well defined, the internal audit team often uses risk and control matrices for more specific analysis of areas to be covered and targeted. In addition, internal control questionnaires (ICQs), policy and procedure manuals, and other such official papers constitute the commonly used forms of internal audit documentation.

Flowcharts help the internal audit team to describe the flow of activity through a process or function along with the relevant documentation. The main output is a process map — a graphical representation of events performed on a routine basis. These process maps can help the internal audit team better understand organizational hierarchies; communication channels; identify risks, controls, paucities, and disorganizations; and develop recommendations for improvements, smooth flow of information and utilization of resources.

Narrative Descriptions are generally useful supplements to flowcharts and are made by documentation in detail of the existing practices. Thus, they help to minimize potential misinterpretations. However, narrative descriptions on an independent basis cannot serve as an effective tool for process description as they tend to be lengthy and difficult to review.

ICQs or internal control questionnaires generally list answers to questions related to the identification and evaluation of internal controls systems and their effectiveness. An effective ICQ document comprises of a carefully structured and logically sequenced series of questions aimed to document processes and to control gaps, strengths, and weaknesses within the organization's control system. All questionnaire results provide a permanent record of the controls at both an entity and process level and are used for future reviews.

Risk and Control Matrices are designed to document risks and controls while facilitating evaluation of the design and success of the control mechanism. These matrices help to obtain initial understanding of the requirements for controls in any process. The internal audit team can locate gaps between the current set of controls and the desirable or targeted level of specific controls of the process.

Policy and Procedure Manuals generally establish a systematic framework or guidance note for specific functions, processes and activities of any organization. These operational level manuals are typically incorporated to manage operation risks while keeping a track of relevant internal controls and risks. These manuals also help to communicate how a particular process is to be managed and ensures alignment with performance improvement objectives of the organization.

The Organizational Chart is an important graphic diagram that shows the power relationships inside a company. It states who is the manager and his subordinates in a hierarchical and vertical structure. The use of this chart is very useful for all employees because they can see in a very simple graphic of what is their current position inside the company and their ranks according to their position. An organizational chart is also used for showing the relationships between directors in various departments. For large companies like multinationals, these charts are very complicated and also large, so they are divided into smaller ones for each department within the organization.

Organisational charts can be divided into three categories: hierarchical charts, matrix charts and flat or horizontal charts. Organisational charts don't show the inter-human relationships that develop inside a company. They only show the formal relationships which help the internal audit team to identify where the responsibility of function lies and who has the appropriate authority to take actionable decisions. This understanding is also very crucial to the efficiency of the internal audit.

System Reports are general reports obtained through the existing set of records. These may be maintained manually or electronically through an ERP. System reports are used for and form the basis of all Management Information Systems. These reports are shared with the functional managers and directors from time to time to enable them to be updated with the on goings of the business. There are multiple system reports that the internal auditor has to understand and comment on.

Other Internal Audit Working papers may include, but are not restricted to:

- Planning documents and audit programs;
- Notes and memoranda resulting from interviews;
- Copies of important contracts and agreements;
- Information about operating and financial policies;
- Results of control evaluations;
- Letters of confirmation and representation;
- Analysis and tests of transactions, processes, and account balances:
- Results of analytical procedures;
- The audit's final communications and management's responses and
- Audit correspondence if it documents audit conclusions reached.

Chapter 3
Planning an Internal Audit and Audit Programme

Planning of internal audit

Internal audit function aligns focus and activities to the organization's risks. To achieve alignment between the organization's risks and internal audit coverage, it is imperative that internal audit planning to occur in the context of Company-wide assurance mapping, which can be commissioned by the Audit Committee. Within this context, internal audit planning generally involves a detailed work plan, prepared on an annual basis. To provide context, the work plan might be supported by a schedule of potential audits and an indication of previous audit coverage. This document serves the purpose of setting out in strategic and operational terms the broad roles and responsibilities that are included in the internal audit charter and identifying key issues relating to internal audit capability, such as required skills.

Factors Affecting the Planning Process

The internal audit plan should be based on the knowledge of the entity's business. While designing the audit plan, internal auditor should consider critical elements like objective of audit, time, resource requirements, risk management policy of the organization and ensuring that the resultant risk remains within the appetite of the organization. Therefore, the planning process encompasses internal auditor's knowledge and perception of:

- The objectives of the activity being subjected to internal audit.
- The significant risks associated with the above activity.
- The risk management and internal control system instituted in the organization to reduce the above risks to an acceptable level.
- The possible areas in which the internal audit can suggest improvement to the risk management and/ or internal control system associated with the concerned activity.
- The selection of engagement team (including, where necessary, the engagement team quality control reviewer) and the assignment of audit work to the team members, including the assignment of appropriately experienced team members.
- Business developments affecting the entity, including changes in information technology and business processes, changes in key management, and acquisitions, mergers and divestments.
- Industry developments such as changes in industry regulations and new reporting requirements.
- Changes in the financial reporting framework, such as changes in accounting standards.
- Other significant relevant developments, such as changes in the legal environment affecting the entity.

Scope of Planning

Internal audit plan should cover areas such as:

- Obtaining the knowledge of the legal and regulatory framework within which the entity operates.

- Obtaining the knowledge of the entity's accounting and internal control systems and policies.
- Determining the effectiveness of the internal control procedures adopted by the entity.
- Determining the nature, timing and extent of procedures to be performed.
- Identifying the activities warranting special focus based on the materiality and criticality of such activities, and their overall effect on operations of the entity.
- Identifying and allocating staff to the different activities to be undertaken.
- Setting the time budget for each of the activities.
- Identifying the reporting responsibilities.

The internal audit plan should also identify the benchmarks against which the actual results of the activities, the actual time spent, the cost incurred would be measured.

Planning Process

The internal auditor should obtain a level of knowledge of the entity sufficient to enable him to identify events, transactions, policies and practices that may have a significant effect on the financial information. Following are some of the sources wherefrom the internal auditor can obtain such knowledge:

- Previous experience, if any, with the entity and the industry.
- Legislation and regulations that significantly affect the entity.
- Entity's policy and procedures manual.
- Minutes of the meetings of the shareholders, board of directors, and important committees of the board such as the audit committee, remuneration committee, shareholders' grievances committee.
- Management reports/ internal audit reports of prior periods.
- Newspaper/ industry journals.
- Discussion with client's management and staff.
- Visits to entity's plant facilities etc., to obtain first-hand information regarding the production processes of the entity.
- Visits to the entity's department where the accounting and other documents are generated, maintained, and the administrative procedures followed.
- Other documents produced by the entity, for example, material sent to the shareholders and the regulatory authorities, management policy manuals, manuals relating to accounting and internal controls, organizational charts, job description charts, etc.

Knowledge of the entity's business, among other things, helps the internal auditor to identify areas requiring special focus, evaluate the appropriateness of the accounting policies and disclosures, accounting estimates and management representations. Knowledge of the business would also help the auditor to identify the priorities of the business, critical factors or constraints in the smooth running of the business as also understand the trends in respect of various financial and operating ratios, etc.

Audit Programme

The internal auditor should device a documented internal audit programme describing the processes essential to meet the objective of internal audit plan. Internal audit programme to be drawn before the start of the audit in consultation with relevant stake owners.

The internal audit programme identifies, in appropriate details:

- the objectives of the internal audit in respect of each area,
- the staff responsible for carrying out the particular activity,
- the time allocated to each activity as also the sufficiently detailed, and
- Sufficiently detailed instructions to the staff as to how to carry out those procedures.

The internal audit programme may also have provision for information such as:

- The procedures actually performed,
- Reasons for not performing the originally identified procedures,
- Actual time consumed in carrying out the relevant procedure, and
- Reasons for deviations from budgeted time etc.

A well prepared, comprehensive audit programme helps proper execution of the work as well as of the proper supervision, direction and control of the performance of the engagement team.

Sample- Information requisition

Description of Information/Data

- Copy of existing process flow charts, operating procedures and policies including specifically the following:

a. Schedule of authority for expense and payments.
b. User manual and process flows used for Oracle.
c. Valid circulars/ mails on policies.

  - Summary of active projects - Project Description, Nature of Project (commercial/ residential), Location, Project Size (Budget, Duration), Current Completion status, Project Head etc.
  - Details of management review committees (Composition, Role, Responsibilities, Frequency of meetings, Agenda, Minutes of meeting for last 1 year etc.)
  - Copies of internal audit reports/ management audit reports for last 2 years.
  - Copy of Information presented to the Board as part of the Board Agenda (last two months) and copy of Minutes of the meetings (Board, Audit Committee and Executive Committee if any) for last two years.
  - Summary of agreements with main service providers and business associates
  - Copies of existing statutory and legal compliance checklists and procedures
  - Listing of existing MIS Reports by Function/ Company as a whole (Daily/ Weekly/ Monthly/ Quarterly) and copy for last 3 consecutive months
  - Details of IT Applications currently in use as follows:

a. Name of the application
b. Purpose of the application
c. Integrated with main financial application - yes / no, (if no is it proposed to be integrated - yes / no)

Planning an internal audit, selection of audit coverage, priority of the internal audit and estimating resources of time and costs for the entire internal audit function. The Internal Auditor needs to align its focus and activities to the entity's risks and to achieve this alignment between the entity's risks and internal audit coverage, it is necessary for internal audit planning to occur in the context of entity-wide assurance mapping, which can be commissioned by the management. Thus, internal audit planning generally involves:

- The internal audit strategy that relates the role of internal audit to the requirements of the entity by outlining the broad direction of internal audit over the medium term, in the context of all the entity's assurance activities and
- An Internal Audit work plan, generally prepared on an annual basis, supported by a schedule of potential audits and an indication of previous audit coverage.

Together, these documents serve the purpose of setting out in strategic and operational terms the broad roles and responsibilities that are included in the internal audit charter and identifying key issues relating to internal audit capability, such as required skills.

Internal Audit Work Plan

In addition to the internal audit strategy, a detailed internal audit work plan should be prepared specifying the proposed internal audit coverage over the planning cycle. The length of this planning cycle will depend on the nature of the organization and its current operating environment. Organizations would be benefited by adopting a rolling work plan rather than a fixed term plan to enable flexibility to the Internal Audit function.

Internal audit team should share information and coordinate with other assurance activities to ensure proper coverage and minimize duplication of effort. The internal audit work plan facilitates both tasks and helps internal audit to ensure that it supports the management to the maximum extent possible. Generally, the head of the Internal Audit team must provide advice to the management on the internal audit plan and would review the plans to ensure that they are aligned to the entity's risks before recommending approval of the plan by the Chief Executive.

Coverage of the Internal Audit Work Plan

The coverage of the internal audit work plan need be comprehensive and definitive to ensure non value added activities are ignored. Such an internal audit work plan would generally include audits of major information technology systems, audits of major projects and all or a majority of the following activities:

a. Audits of areas where the risk is judged to be high but the controls are considered to be effective in managing the risk. These audits are to provide assurance that the controls are in fact operating as intended;

b. Advise on new systems, processes and initiatives-these may be referred to as 'systems under development' audits;

c. Audits of major information technology systems focusing, in particular, on security and access matters, and audits of major projects;

d. A number of annual (or more frequent) audits to review key areas of financial, operational, human resource or governance matters across different business units and geographical locations or a series of audits that are conducted each year.;

e. Audits that review particular topics across the whole entity-such as procurement practices, recordkeeping, ethical conduct and compliance with APS and entity values-or that are aimed at addressing systemic risks;

f. Follow-up audits of areas audited previously where shortcomings have been identified and

g. A number of reserve audit topics that could be substituted if planned audits do not proceed.

The program may also include an allowance to undertake ad hoc or special request audits, particularly from the management and the Audit Committee. These reviews may prove to be either advisory or quality assurance reviews and should be budgeted as an addition to the routine assurance program.

Developing the internal audit work plan against a background of prior and projected reviews would enable the management to assess whether the full range of risks, especially compliance risks, are covered over an appropriate period. Selection of audit topics should also be confirmed only after careful consideration of the objectives and scope of individual audits. These factors can have a significant effect on the cost of the internal audit work plan or the number of audits included in the plan. In particular, consideration should be given to whether it is better to have fewer, more in-depth audits, more audits with a narrower focus, or a combination of both.

Consultation with the External Auditor

To gain an understanding of their perspective on the business risks facing the entity is important. This information is necessary to help ensure that potential duplication and gaps in overall audit coverage are known, and to identify opportunities for the external auditor to rely on the work of internal audit. Any significant areas that are not covered or are duplicated should be highlighted to the management.

Size and nature of the Internal Audit Work plan

The Size and nature of the Internal Audit Work plan must factor the following:

a. The risk tolerance and the risk profile of the entity:

An entity with a low risk tolerance and a substantial number of risks and, by extension, controls designed to assist in managing the risks, could be expected to have a larger internal audit program than an entity with a higher risk tolerance and a smaller risk profile.

b. The size and complexity of the entity's business:

Larger the number of separate business activities and programs, the internal auditing that could be expected to be required would be larger in size.

c. The physical characteristics of the entity:

The larger the employees or geographic locations number of, or the greater the level of distributed control, the larger the internal audit program expected to be.

d. The nature of the information systems:

The more complex the Internal Control systems environment, the more internal audit activity is likely to be required.

e. The stability of the entity:

Internal audit might be required to do more in times of significant change.

f. The number of internal assurance functions:

An entity with well-developed quality assurance, compliance or other internal assurance activities is likely to require less internal audit activity.

g. Level of Resourcing:

The size of the internal audit work plan will also be influenced by the level of resourcing of the internal audit function as discussed below.

In preparing the plan, sufficient time and resources should also be allocated to:

a. manage the internal audit function;

b. monitor and report to the Audit Committee on progress in implementing agreed recommendations in internal and external audit reports and other review bodies;

c. analyze the risk, control and governance issues arising from internal audit work, and/or the work of other assurance providers, with a view to providing periodic reports to the Audit Committee on systemic issues and trends;

d. support the Audit Committee in discharging its obligations;

e. provide secretarial support to the management (if specifically defined);

f. develop and periodically review the internal audit strategy and the internal audit work plan;

g. provide appropriate professional development to internal audit staff and

h. Liaise with the external auditor and other relevant external bodies.

Any internal audit work plan should be so detailed as to satisfy the Audit Committee and the management that estimated coverage area of the internal audit is adequate to meet the set objectives of the Internal Audit Charter. The internal audit work plan would generally include:

1. Audit title
2. Functional and Operational Area to be covered

3. Director and manager responsible
4. Type and scope of internal audit
5. The benefit expected by the audit procedure
6. Resources allocation for the purpose of the audit
7. Proposed duration and timelines for completion

The Internal audit work plan is presented to the Audit Committee and the management through mind-maps, executive summary, charts or a mix of such abbreviations of the work plan.

The Internal Audit work plan should be periodically reviewed and any substantive amendments should be approved by the management. Internal audit plans should be prepared and submitted in time to enable them to be considered and approved prior to the commencement of the period to which they apply. Aligning the timing of the internal audit planning process with that of the entity's business planning processes can assist in internal audit planning being aligned with the objectives and priorities of the entity. There is also value in considering the external audit planning cycle so that work being conducted with a view to external audit reliance can be appropriately scoped.

Chapter 4
Audit Sampling

"Audit sampling" means the applying audit procedures on such a portion of transactions (i.e. less than 100. of the items within the activity), the outcome of which would represent the entire population.

The audit sampling in this industry is having its own importance due to volume of operations and processes spread across various geographical locations. Sample collection and selection should be done on careful study and needs standard operations.

What is an Audit Sample:

Audit sampling is the process of using auditing techniques in respect of various items in a company's account balance such that each unit may have an equal opportunity of being selected. The different methodologies available for statistically based selection of sample size are as follows:

1. Random Sampling

In a simple random sample every transaction or data point within the audit population has an equal chance of selection. An easy way of selecting samples would be to use a random number table or random number generator. The Random Number Table is much more effective than manually selecting the random samples as the data in this table portraits the desired properties no matter how chosen from the table: by row, column, diagonal or irregularly. The Random Number Generator undertakes the same function of generating a sequence of numbers or symbols that lack any pattern. Due to random selection there is a reduction in the possibility of any systematic bias that would make the selected group different in character from the overall population.

2. Consecutive Sampling

Consecutive sampling is often referred to as convenience sampling. It involves choosing the next, or last however many cases, e.g. the next OR the last 50 transactions, or alternatively, all transactions seen over the course of the previous OR next month. Consecutive sampling is an example of non-probability sampling and is often the most practical way of selecting cases for a 'snapshot' sample of the population. However, it is important to remember that the sample produced may differ in character from the overall population and therefore the internal audit results may not be representative of the overall nature of all transaction in the database.

3. Quasi Random Sampling

Quasi random sampling is also referred to as systematic sampling. If the overall audit population is 1000, the representative sample would be 278. Since 4 x 278 is approximately 1000 the internal audit team would select every fourth transaction from the overall database. To ensure that every transaction in your audit population has an equal chance of being selected, the starting point in this method needs to be selected randomly. In this instance the starting number must be between 1 and 4. The start point must be random because if you always started with the first patient, the second patient would never have a chance of being selected. This is an important consideration from a statistical point of view.

4. Haphazard Sampling

The Haphazard Sampling method means selecting items on an arbitrary basis, but without any conscious bias. This method, though random in nature, may lead to an increase in the sampling risk as there is no statistical methodology for selecting the starting point or the number of samples.

5. Block Sampling

Block sample consists of all items in a selected time period, numerical sequence or alphabetical sequence. The basis for selecting the sequence or group would determine the level of sampling risk of the data. The selection of the sequence or group should be without any conscious bias and the entire population within the sequence or group must be verified.

6. Stratification Sampling

Stratification is the technique of dividing the entire population into relatively homogeneous subgroups. Stratified sampling ensures that the proportion of different groupings present in the population is reflected in the sample. The basis for determining the subgroup should be consulted with the management and specifically mentioned in Internal Audit work plan as well as the final report.

The **sample size** selected affects the level of sampling risk of the sample. Every increase in sample size reduces the sampling risk and allowance for sampling risk. The sample size is generally directly proportionate to the characteristics of the population and an increase in the population leads to an increase in the sample size.

In addition, after careful consideration of the methodology of sampling and sample size, the sample selection plan should be based on:

- The relevance of the sample to the audit purpose
- Level of acceptable risk in the sample
- General features of the sample population so as to accurately represent the population
- All un-auditable items or samples must be taken as deviations
- Deviations should be coupled together and their nature or occurrences must be analyzed

In the rare occurrence, when undertaking audit sampling to test control systems or processes, the following steps need to be followed:

1. Determine the objective and nature of control system or process
2. Determine the risk acceptability
3. Define the sample population
4. Ascertain the risk of a high tolerable deviation rate
5. Estimating the sample population deviation rate
6. Determine the sample size based on acceptable deviation
7. Selection of the sample

8. Validation of the sample selected
9. Evaluation and analysis of the samples
10. Documentation of the sampling procedure, results and recommendations

Whatever method the audit sampling is selected and used, the Objective is to check and pass through the whole cycle to ensure that system and control is in place for methodical recording of accounting transactions.

The choice of sampling method and its implementation in audit sequence depends up on the nature and size of the activity that is selected by the auditor and the consequence of its test results and satisfaction on getting further audit evidence and application of analytical procedures and Audit report presentation.

Chapter 5
Audit Evidence

Audit evidence is the extracted information or statement or document or management report internally or externally by the auditor while preparing the 'Report' for management decision and guidance action for better and improving operations in the Company.

Audit evidence is all the information used by the auditor in arriving at the conclusions on which the audit opinion is based and includes the information contained in the accounting records underlying the financial statements and other information.

As the auditor is supposed to examine all the information and records that pass through the system, the object of getting and producing audit evidence lies in its acceptability by the auditee and other authorities. Therefore choosing and production of audit evidence is the stepping stone for auditors' ideal report which will be very much helpful in discussions during the audit committee meetings to bring strength to the observations.

The auditor should consider the reliability of the information to be used as audit evidence, for example, photocopies; facsimiles; or films, digitized, or other electronic documents(e mails), including consideration of controls over their preparation and maintenance where ever relevant. However, an audit rarely involves the authentication of documentation as the audit evidence that is collected by the internal auditor is from the records, files registers and books of accounts of the auditee which cannot be denied by the company.

Evidence and Analytical Procedures

The recommendations, findings and comments of the internal audit report should all be based on and supported by appropriate and adequate audit evidence. Evidence should cover all activities checked and controlled by the audit plan with specific notes for possible errors, their materiality and risks of occurrence. An internal auditor should obtain the evidence considered necessary for the achievement of the internal audit assignment objectives. The level of detail required for this evidence depends on the objective and scope of the audit, scale of misstatement or level of risk, cost and time involved in obtaining the evidence and finally reliability of the evidence. Reliance on evidence can be satisfied with its nature, extent, adequacy, consistency and relevance to the internal audit assignment and with the methods governing its collection.

Method of obtaining reasonable Audit Evidence

The auditor should obtain audit evidence to draw reasonable conclusions on which to base the audit opinion by performing audit procedures to:

1) Obtain an understanding of the entity and its environment, including its internal control, to assess the risks of material mis-statement in the financial statement, if any, and relevant assertion levels (audit procedures performed for this purpose are referred to as risk assessment procedures)

2) When necessary or when the auditor has determined to do so, test the operating effectiveness of

controls in preventing or detecting material misstatements at the relevant assertion level.
3) Detect material misstatements at the relevant assertion level (audit procedures performed for this purpose are referred to as substantive procedures and include tests of details of classes of transactions, account balances, and disclosures, and substantive analytical procedures).

Audit evidence is all the information used by the auditor in arriving at the conclusions on which the audit opinion is based and includes the information contained in the accounting records underlying the financial statements and other information.

Internal audit evidence is used by the internal auditor to support the facts and opinion contained in his report. It is cumulative in nature and is primarily obtained from audit procedures performed during the course of the internal audit.

The internal auditor should evaluate whether he has obtained sufficient appropriate audit evidence before he draws his conclusions there from. The internal audit evidence should enable the internal auditor to form an opinion on the scope of the terms of the engagement.

Audit evidence is any information used by the auditor to determine whether the information being audited is stated in accordance with established criteria and to arrive at the conclusions on which the audit opinion is based. The determinants of persuasiveness of evidence are:

1. Competence – the range of skill, knowledge, or ability
2. Effectiveness – adequate internal controls systems and clear communication channels lead to better information
3. External Auditor observations – external auditor's observations are stronger than staff or management comments
4. Expert opinions – an expert's opinions is a practical and authorized basis
5. Independence – external evidence is considered as a better form of evidence than internal documents or proofs
6. Objectivity – objective evidence is stronger than subjective evidence
7. Relevance –pertaining to or in support of the audit objective
8. Sufficiency – an adequate amount, quality or quantity

Types of the internal audit evidence

Internal Audit Evidence includes any data, information, process flows, vouchers, bills, memos, contracts or transactions. The commonly used procedures for sourcing of internal audit evidence are as follows:

a. Physical examination

Physical examination means inspection or count of tangible assets. It is different from examining documentation that the asset has inherent value.

b. Confirmations

Confirmations mean the receipt of a written or oral response from an independent third party. The Internal Audit team requires a client request for the third party respond directly to the team.

Conformations are usually required when statements or transactions relate to third parties; key examples of third parties include suppliers, banks, attorneys, inventory agents and customers.

c. Documentation

Documentation includes both internal and external documents. Internal documents are prepared and used within organization and do not go outside the company. Whereas external documents have been in hands of a third party to the transaction and are considered more reliable. Documents in general are less reliable than confirmations.

Before recording documents as evidence, proper examination of documents that support a recorded transaction or amount is required; and the direction of testing must be from the item recorded to the supporting document.

d. Analytical Procedures

The Internal audit function studies the different relationships among data. Analytical procedures are generally required during the planning and completion phases on all audits. They are necessitated by the existence of unusual fluctuations which occur when significant difference are not expected but do exist or when significant differences are expected but do not exist.

e. Inquiries of the Client

The Internal Auditor usually obtains information from the client in response to questions. Although much evidence is obtained through inquiry, it cannot be regarded as conclusive and may be biased in the organization's favour. To accomplish an unbiased opinion or review, the internal audit team may have to inquire independently with the customers of the organization.

f. Re-performance

Re-performance involves rechecking a sample of the computations and transfers of information. Rechecking of computations consists of testing mathematical accuracy. Rechecking of transfers of information involves ensuring if information is recorded consistently in the accounting records.

g. Observation

The Internal audit team should witness the physical activities of the organization. Observations differ from physical examinations because physical examinations count the assets, while observations focus on organization's activities and process both.

In the extreme circumstances that the evidence obtained from one source is either in direct conflict or inconsistent with that obtained from another source, the internal audit team must undertake further investigation or additional procedures for resolving the conflict. The Internal Auditor is required to collect appropriate evidence out of the audit process to substantiate their checking and findings.

Chapter 6
Analytical Procedures

"Analytical procedures" means the analysis of significant ratios and trends, including the resulting investigation of fluctuations and relationships in both financial and non-financial data that are inconsistent with other relevant information or which deviate significantly from predicted amounts. Analytical procedures provide the internal auditor with an efficient and effective means of making an assessment of information collected in an audit. The assessment results from comparing such information with expectations identified or developed by the internal auditor.

Analytical procedures include the consideration of comparisons of the entity's financial and non-financial information with, for example:

- Comparable information for prior periods.
- Anticipated results of the entity, such as budgets or forecasts or expectations of the internal auditor.
- Predictive estimates prepared by the internal auditor, such as an estimation of depreciation charge for the year.
- Similar industry information, such as a comparison of the entity's ratio of sales to trade debtors with industry averages, or with other entities of comparable size in the same industry.
- Analytical procedures also include consideration of relationships:
- Among elements of financial information that would be expected to conform to a predictable pattern based on the entity's experience, such as gross margin percentages.
- Between financial information and relevant non-financial information, such as payroll costs to number of employees or total production costs to quantity produced.
- Analytical procedures are used for the following purposes:
- To assist the internal auditor as risk assessment procedures to obtain initial understanding of the entity and its environment and thereafter in planning the nature, timing and extent of other internal audit procedures;
- As substantive procedures when their use can be more effective or efficient than tests of details in reducing detection risk for specific financial statement assertions;
- As an overall review of the systems and processes in the final review stage of the internal audit; and
- To evaluate the efficiency of various business/ management systems.

As is understood in audit parlance, an analytical procedure is one of many financial audit processes which help an auditor understand the client's business and changes in the business, and to identify potential risk areas to plan other audit procedures.

Application of analytical procedures in mining industry/ or of that particular company depends up on the stage of Internal checks and Internal controls that exists in the organization and also the financial Reporting methods adopted by the Company.

While choosing **analytical procedures** an auditor shall keep in mind the following:

a) Internal reporting pattern and instruments thereon like

   i) Functional Budgets and Master budget of various Operations
   ii) Forecasts of functional heads for performance measurement in line with MBO
   iii) Prior Periods operational data
   iv) MIS and Cross functional meetings data
   v) Financial Information analysis like ratio analysis, (GP to Sales, Employee Cost to Production etc.) input-out comparison statements
   vi) External Reports(Periodical) submitted to various stakeholders like

b) External Reports(Periodical) submitted to various stakeholders like VAT Authorities, CBEC, ITO, EXIM authorities etc. to draw conclusions after due application of proper assessment procedures.

Analytical Procedures as Substantive Procedures

The internal auditor's reliance on substantive procedures to reduce detection risk relating to specific financial statement assertions and assertions relating to process, systems and controls may be derived from tests of details, from analytical procedures, or from a combination of both. The decision about which procedures to use to achieve a particular internal audit objective is based on the internal auditor's judgment about the expected effectiveness and efficiency of the available procedures in reducing detection risk for specific financial statement assertions or assertions relating to process, systems and controls.

The internal auditor will ordinarily inquire of management as to the availability and reliability of information needed to apply analytical procedures and the results of any such procedures performed by the entity. It may be efficient to use analytical data prepared by the entity, provided the internal auditor is satisfied that such data is properly prepared.

Analytical Procedures in the Overall Review at the End of the Internal Audit

The internal auditor should apply analytical procedures at or near the end of the internal audit when forming an overall conclusion as to whether the systems, processes and controls as a whole are robust, operating effectively and are consistent with the internal auditor's knowledge of the business. The conclusions drawn from the results of such procedures are intended to corroborate conclusions formed during the internal audit of individual components or elements of the financial statements, e.g., purchases, and assist in arriving at the overall conclusion. However, in some cases, as a result of application of analytical procedures, the internal auditor may identify areas where further procedures need to be applied before the internal auditor can form an overall conclusion about the systems, processes and associated controls.

Extent of Reliance on Analytical Procedures

The application of analytical procedures is based on the expectation that relationships among data exist and continue in the absence of known conditions to the contrary. The presence of these relationships provides the internal auditor evidence as to the completeness, efficiency and effectiveness of systems, processes and controls. However, reliance on the results of analytical procedures will depend on the internal auditor's assessment of the risk that the analytical procedures may identify relationships as expected when, in fact, a material misstatement exists.

The extent of reliance that the internal auditor places on the results of analytical procedures depends on the following factors:

- Materiality of the items involved, for example, when inventory balances are material, the internal auditor does not rely only on analytical procedures in forming conclusions. However, the internal auditor may rely solely on analytical procedures for certain income and expense items when they are not individually material;
- Other internal audit procedures directed toward the same internal audit objectives, for example, other procedures performed by the internal auditor while reviewing the credit management process, in the collectability of accounts receivable, such as the review of subsequent cash receipts, might confirm or dispel questions raised from the application of analytical procedures to an ageing schedule of customers' accounts;
- Accuracy with which the expected results of analytical procedures can be predicted. For example, the internal auditor will ordinarily expect greater consistency in comparing gross profit margins from one period to another than in comparing discretionary expenses, such as research or advertising; and
- Assessments of inherent and control risks, for example, if internal control over sales order processing is weak and, therefore, control risk is high, more reliance on tests of details of transactions and balances than on analytical procedures in drawing conclusions on receivables may be required.

Substantive tests (also known as substantive procedures) are procedures designed to test for monetary errors or irregularities directly affecting the correctness of financial statements. The Internal audit performs substantive tests to detect material misstatement at the assertion level. Substantive tests of transactions emphasize the verification of transactions recorded in the journals and then posted in the general ledger.

Analytical procedures emphasize the overall reasonableness of transactions and the general ledger balances. Thus, analytical procedures serve as both audit tests and audit procedure.

Analytical procedures refers to the analysis of significant ratios and trends including the resulting investigation of fluctuations and relationships that are inconsistent with other relevant information or which deviate from predicted amounts. The analysis of these deviations may be achieved through the consideration of comparisons of the entity’s financial information with:

- Comparable information for prior periods
- The entity’s anticipated results

- Similar industry information.

When performing analytical procedures, the internal audit team must examine both financial data and non-financial data relating to the transaction. Before starting their analytical procedures, the internal auditor estimate the expected value (of the ratio/ trend/ account balance/ transaction, etc.) before calculating the actual value so as to avoid the actual value being biased for the auditor's estimate of the expected value. The expected results are estimated based on preliminary discussions with the management.

After having performed their analytical procedures, the internal audit function then compares the actual results with those expected and looks for reasons for any significant variations. Unexplained variations may indicate a misstatement in the figures in that area, which would lead the auditors to plan their audit work to devote more time and resources to those areas. When the application of analytical procedures does not identify any unusual or unexpected differences, the results provide evidence in support of management's assertions.

Analytical procedures may be performed at any or all three stages in the audit process: the planning phase, the testing phase and the completion phase.

During the **planning phase**, analytical procedures can be used as risk assessment procedures. They help auditors identify significant matters requiring special consideration later in the audit engagement to understand the client's industry and business, to assess going concern, to indicate possible misstatements and to reduce detailed tests.

During the **testing phase**, analytical procedures can be used as substantive procedures in collecting appropriate audit evidence. They can be performed together with other substantive procedures and they help to indicate possible misstatements and to reduce detailed tests.

During the completion phase, analytical procedures can be used as part of an overall review of the financial statements for the auditors to reach conclusions about the fair presentation of the financial statements. The analytical procedures help the auditors to take a final review of the audited financial statements objectively and help to assess going concern and to indicate possible misstatements.

Analytical procedures too have certain inherent limitations. They only provide conclusions on reasonableness of data rather than precision and cannot easily be linked to specific assertions (i.e. the nature or cause of a difference); therefore analytical procedures are less persuasive than tests of details of balances. The substantive evidence gathered using analytical procedures is thus generally used to corroborate other substantive evidence gathered, rather than being used as a sole source of evidence.

On the other hand, Analytical procedures cost the least because of the relative ease of making calculations and comparisons. It is quite often easier for auditors to obtain considerable information about potential misstatements by simply comparing two or three numbers. Tests of controls are low cost because internal audit team simply makes inquiries and observations and examines the evidence of the performance of controls, such as initials on documents. These tests can be done on a large number of items within a short period of time.

To ensure the expected effectiveness and efficiency of an analytical procedure, identification of potential for misstatements need to be assessed. These depend on:

1. The nature of the assertion
2. The plausibility and predictability of relationship
3. The availability and reliability of the data used to develop the expectation
4. The precision of the expectation.

The identification of the relationships and types of data used, as well as conclusions reached when recorded amounts are compared with expectations and require judgment by the auditors, should be documented using the expectation and factors considered in its development, the results of the comparison of the expectation with the recorded amounts or ratios developed from the recorded amounts and finally, any additional auditing procedures performed in response to significant unexpected differences arising from the analytical procedures and the results of such additional procedures.

In practice not all the actual results obtained from analytical procedures will be close to the expected results estimated by internal audit team. As mentioned above, the Internal auditor must then have to investigate and obtain adequate explanations and appropriate corroborative audit evidence. The internal auditor seldom jumps to the conclusion that fraud exists, but has to at least reveal the suitability and reliability of data adopted in the estimation. If they are confident with their data, they normally start by making inquiries of management. This should be followed by a corroboration of management's response. However, if management is unable to provide an explanation or if the explanation is not considered adequate, the internal audit team should consider the need to apply other audit procedures based on the results of their inquiries.

To conclude, Analytical procedure is a powerful tool that has the potential to increase the efficiency of audits since it is a relatively low-cost procedure that seems to have considerable power in identifying errors or irregularities and in guiding audits. Although the calculation of ratios and comparison of trends are relatively easy tasks, the analysis of ratios and trends requires a good understanding of the organization's business and industry. Hence analytical procedures are preferably handled by a more experienced internal auditor within the audit team, who has exposure to other companies of the industry. If, in case, a firm of accountants has undertaken the internal audit assignment, either it should have team consisting of experience Cost Accountants to conduct internal audit, cost records and related systems or alternatively, engage a firm of practicing Cost Accountants with a wide exposure to other companies within the industry.

Chapter 7
Accounting System and Internal Control

An Accounting System is often defined as an organized set of manual and computerized accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for management decisions. An accounting system performs the crucial task of accumulating data and providing the management with decision making information. Over the years the process of an accounting system has evolved from being a manual and paper based format to an electronic form. In an electronic financial accounting system, the steps in the accounting cycle are independent in nature, self-reconciliatory and adhering to set rules and controls.

For many years now, keeping an accurate track of all the income and expenditure related to the workings of the organization has been considered a crucial function to satisfy the desire of managements and investors to know the profitability and liability of taxes or otherwise. Although earlier organizations relied on pen and paper and time consuming methods to record their accounting activities, over the years through continuous evolution and advancements, computer based software has helped people gain access to robust and easy to implement accounting systems. The evolution of accounting systems from the first DOS-based systems such as ‘PcPlus’ and ‘Lotus123’ to today's cloud based or internet based systems are now available.

Integrated Accounting System

An Integrated Accounting System is an accounting system which involves joint accounting of cost accounts and financial accounts. This system helps set aside the majority of programs, spreadsheets, and other manual systems and replacing them with one, efficient program that can effectively accomplish nearly all of your accounting needs and goals. An integrated accounting system can perform the wide variety of functions and helps to:

a. Estimate, report on, and monitor all job costs at summary or detailed levels.
b. Track employee time, and then convert it into payroll that is posted to job costs.
c. Easily produce customer statements (or create marketing letters)
d. Reduce data entry time such as converting the estimates into sales orders and/or invoices, and purchase orders into bills.
e. Handle inventory purchases, assemblies, and sales

Instead of simultaneously performing all of these different tasks using multiple data collection and analysis points, an integrated accounting system would help incorporate these different activities and correlate their effect on each other. Thus, an integrated accounting system also helps to accurately retain the information needed to access regarding the various activities and components of the business. An integrated accounting system is also cost effective as maintaining several non-integrated systems not only requires duplication of effort, but it’s time-consuming and typically yields results that are not useful or accurate. Perhaps the greatest benefit of an integrated system is that it would make reconciliations redundant.

Internal control, on the other hand, is the process designed to ensure reliable financial reporting, effective and efficient operations, and compliance with applicable laws and regulations. Safeguarding assets against theft and unauthorized use, acquisition, or disposal is also part of internal control.

The management style and expectations, particularly their control policies, determine the control environment. An effective control environment helps ensure that established policies and procedures are followed. The control environment includes independent oversight provided by a board of directors and, in publicly held companies, by an audit committee; management's integrity, ethical values, and philosophy; a defined organizational structure with competent and trustworthy employees; and the assignment of authority and responsibility.

Control activities are the specific policies and procedures management uses to achieve its objectives.

The most important control activities involve the following:

a. **Adequacy of documents:** The audit documents must provide adequate and relevant evidence that financial statements are accurate. Controls designed to ensure adequacy of accounting system include the creation of invoices, payment receipts and other documents that are easily available, verifiable by external records and consistently tracked.

b. **Appropriate authorization** of transactions and activities help ensure compliance of all organizational activities with the established guidelines while keeping a track of deviations through official communications and approvals.

c. **Independent check** of operational performance of all functions, processes and activities that the organization is involved in helps to ensure the reliability of accounting information along with the efficiency of operations.

d. **Physical verification of** assets and records helps to protect and ascertain the organization’s assets. Physical Verification on a timely basis ensures a complete and accurate Fixed Assets Register.

e. **Segregation of duties** necessitates that different individuals be assigned responsibility for different elements of related activities of a process to ensure multiple levels of system based checks and controls.

In order to identify and establish effective controls, management must continually assess the risk, monitor control implementation, and modify controls as needed. Top managers of publicly held companies must sign a statement of responsibility for internal controls and include this statement in their annual report to stockholders.

It is evident that the objective of any accounting system is to project the operational efficiency into financial reporting system to give a true and fair view of the state of affairs which is subject to statutory auditing to be submitted to various stake holders. However this is possible when an adequate and appropriate system is put in place in the Organization.

It is one of the objectives of an Internal audit system to ensure and strengthen the accounting system of the Organization through which its health can be measured and reporting to various stakeholders like Shareholders, Statutory authorities(MCA,SEBI, Stock Exchange, Taxation Authorities, Industry authorities etc.) Creditors, Debtors, Financial Institutions etc. will be meaningful and will reflect the factual position.

Accounting system is the body of an organization which functions and works through the embedded nervous system of Internal Control and internal checks and give results through Audit reporting system. Internal audit is a management function that safeguards the interests of the Organization through Reporting pattern that gives warning bells as and when necessary and strives for continuous improvement of Organizations functional activities.

While the management is responsible for establishment and maintenance of appropriate internal control and risk management systems, the role of the internal auditor is to suggest improvements to those systems. For this purpose, the internal auditor should:

- Obtain an understanding of the risk management and internal control framework established and implemented by the management.
- Perform steps for assessing the adequacy of the framework developed in relation to the organizational set up and structure.
- Review the adequacy of the framework.
- Perform risk-based audits on the basis of risk assessment process.

The management is commonly responsible for overseeing the day-to-day implementation of these policies and procedures. However, due to the number of detailed requirements involved, there should be specific responsibilities delegated in the organization with the responsibility of understanding and monitoring any specific regulations and compliance factors.

The internal auditor's management letter is an important indicator of the adequacy of internal accounting control structure, and the degree to which it is maintained. The management letter, which accompanies the audit, cites significant weaknesses in the system or its execution. By reviewing the management letter with the management, asking for responses to each internal control lapse or recommendation, and comparing management letters from year to year, a useful mechanism for monitoring is created for financial safeguards and adherence to financial policies. The need to periodically review the internal accounting control system which has been established and modify it to include new circumstances and regulations is a continuous and important activity of every Internal Audit.

Internal auditor may, however, also undertake work involving identification of risks as well as recommend design of controls or gaps in existing controls to address those risks organizational set up and structure.

- Review the adequacy of the framework.
- Perform risk-based audits on the basis of risk assessment process.

Internal auditor may, however, also undertake work involving identification of risks as well as recommend design of controls or gaps in existing controls to address those risks.

Therefore it is the functional duty of an Internal Auditor to assess whether

a) The accounting system in vogue is adequate to the needs of the Organization, if so
b) The Internal Report pattern being generated through the accounting system caters to the needs of the management in identifying and assessing the performance of functional heads and Organizations improvement or needs to be modified.
c) What are the areas where internal controls need to be strengthened for improving operational efficiency
d) Risk assessment and its management in various operations of the Company shall be assessed.

If any of the above issues needs attention and shows deviation, internal auditor has to carefully plan for strengthening the Accounting system as well as connected Internal Controls in the Organization.

Few examples where Internal controls needs checking and improvement may be referred as below.

Metal Accounting:

The requirements for a metal accounting system to be

a) Accurate,
b) Credible and practical,
c) Reliable,
d) Transparent and
e) Auditable.

The principles are meant to be applicable throughout the Company's mining & metallurgical industry, from precious to base metals and from mine to product.

Metal Measurement Accuracy:

The metal accounting system in the Company must ensure that every effort is made to identify any bias that may occur, as rapidly as possible and eliminate or reduce to an acceptable level the source of bias from all measurement, sampling and analytical procedures, when the source is identified. At each stage of separable operation quantity measurement system shall prevail which is accurate and identifiable.

Credible and Practicable:

Target accuracies for the mass measurements and the sampling must be identified for each input and output stream used for accounting purposes. The actual accuracies for metal recoveries, based on the actual measurement accuracies, as determined by statistical analysis of the raw data, achieved over a company's reporting period must be stated in the report to the company's audit committee. Should these show a bias that the company considers material to its results - the fact must be reported in the internal audit report.

Data Validation-Verification:

The system must generate sufficient data to allow for data verification, the handling of metal/commodity transfers, the reconciliation of metal/commodity balances, and the measurement of accuracies and error detection, which should not show any consistent bias. Measurement and computational procedures must be free of a defined critical level of bias.

Verification of Stock in Process

In order to ensure the Stock in Process (Inventory) figures must be verified by physical stock-takes at prescribed intervals, at least annually, and procedures and authority levels for stock adjustments and the treatment of unaccounted losses or gains must be clearly defined

Internal Control System

An internal control system is crucial to the successful functioning of any enterprise. It refers to the policies and procedures as well as the attitude of the management to assist in achieving the following overall objectives of the management:

- Orderly and efficient conduct of the business
- Adherence to management's policies and directives
- Safeguarding assets
- Prevention and detection of frauds and errors
- Accuracy and completeness of the accounting records
- Timely preparation of reliable financial information

The absence, inadequacy or malfunctioning of the internal control system could, therefore, have adverse results.

To be able to effectively help the management achieve its above mentioned objectives, it is essential that the internal control system has the following elements:

- Integration with the risk management policy of the entity.
- Constant monitoring of various activities and functions.
- Identification and analysis of variances.
- Determination and implementation of corrective action.
- Revision of objectives and norms where needed and where supported.

In addition, the internal controls must also satisfy the three basic criteria:

- they must be appropriate, i.e., the right control in the right place and commensurate to the risk involved;
- they must function consistently as planned throughout the period, i.e., be complied with carefully by all employees involved and not by-passed when key personnel are away or the workload is heavy; and
- They must be cost effective, i.e., the cost of implementing the control should not exceed the

benefits derived.

The internal control system should focus on both accounting and non-accounting operations and functions. Strong accounting controls result in correct, reliable, timely and relevant reporting of financial transactions that have already occurred while strong controls in operational areas improve the overall performance of the enterprise.

The internal auditor should review whether the internal controls are cost effective. Evaluation of cost effectiveness should take into consideration both direct and indirect costs. Review of internal controls may include interviews with personnel at various organizational levels, transaction walkthroughs, review and analysis of documented policies and procedures and mapping the process to determine and rectify existing control gaps and to suggest process improvement. The internal auditor should determine if the controls were in use throughout the period of intended reliance or have there any substantial alterations in the same during the stated period. Different techniques may be used to record information. Selection of a particular technique depends on the auditor’s judgment.

Evaluation of Internal Control

Internal auditors should systematically evaluate the nature of operations and system of internal controls in the departments being audited to determine the nature, extent and timing of audit procedures. Internal controls of an organization comprise the plan of organization and methods adopted to safeguard assets, comply with laws, ensure the completeness and correctness of data, promote efficiency and encourage adherence to management policies. It is important that a review of an internal control system be directed primarily towards those controls that have an important bearing on the reliability of the system (i.e., key controls).

Internal Control Assessments

The internal auditor assess the ‘as –is’ internal control system within the organization and map it against a globally accepted ‘standard’ which is basically, an Internal Controls framework- COSO being the most widely used.

- Evaluate efficiency and effectiveness of controls
- Recommend new controls where needed – or discontinuing unnecessary controls
- Use of control frameworks
- Control self-assessment (CSA)

The most contentious aspect of SOX is Section 404, which requires management and the external auditor to report on the adequacy of the company's internal control over financial reporting (ICFR). This is the most demanding aspect of the legislation for companies to implement, as documenting and testing important financial manual and automated controls requires enormous effort. Under Section 404 of the Act, management is required to produce an “internal control report” as part of each annual Exchange Act report. The report must affirm “the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting.” The report must also "contain an assessment, as of the end of the most recent fiscal year of the company, of the effectiveness of the internal control structure and procedures of the issuer for financial reporting." To do this, managers are generally adopting an internal control framework such as that described in COSO. Both management and the external auditor are responsible for performing their assessment in the context of a top-down risk assessment, which requires management to base both the scope of its assessment and evidence gathered on risk. Both the PCAOB and SEC recently issued guidance on this topic to help alleviate the significant costs of compliance and better focus the assessment on the most critical risk areas. The recently released Auditing Standard No. 5 of the Public Company Accounting Oversight Board (PCAOB), which superseded Auditing Standard No 2, has the following key requirement for the external auditor:

Assess both the design and operating effectiveness of selected internal controls related to significant accounts and relevant assertions, in the context of material misstatement risks;
Understand the flow of transactions, including IT aspects, sufficiently to identify points at which a misstatement could arise;

- Evaluate company-level (entity-level) controls, which correspond to the components of the COSO framework;
- Perform a fraud risk assessment;
- Evaluate controls designed to prevent or detect fraud, including management override of controls;
- Evaluate controls over the period-end financial reporting process;
- Scale the assessment based on the size and complexity of the company;
- Rely on management's work based on factors such as competency, objectivity, and risk;
- Evaluate controls over the safeguarding of assets; and
- Conclude on the adequacy of internal control over financial reporting.

Internal control of accounting systems involves a series of procedures designed to promote and protect sound management practices, both general and financial. Following internal accounting control procedures will significantly increase the likelihood that:

1. financial information is reliable, so that managers and the board can depend on accurate information to make programmatic and other decisions
2. assets and records of the organization are not stolen, misused, or accidentally destroyed
3. the organization s policies are followed
4. Government regulations are met.

The preliminary step in developing an effective internal accounting control system is to identify those areas where abuses or errors are likely to occur. The management can also provide the internal audit function with a checklist of the areas and the questions to consider when planning this system. The following areas and objectives are generally targeted in developing an effective internal accounting control system:

1. Cash and cash equivalents
2. Cash disbursements

3. Cheque issuance
4. Grants, gifts, and bequests
5. Current Assets and Current Liabilities
6. Inventories
7. Trade Receivable and Trade payable
8. Non-Current Assets and Non-Current Liabilities
9. Secured and Non Secured Loan
10. Deposits
11. Transfers
12. The annual budget and periodic comparisons of financial statements
13. Personnel policies, payroll

Chapter 8
Control and Risk Assessment

Internal control and Risk Management systems are of paramount importance in the activities of any organization. The objective of Control mechanism in any organization is aimed at smooth flow of operations that helps the transformation of the business in to 'True and fair preparation of transactions' in Financial terms to depict its health position periodically. However Controls needs continuous assessment and revision through various methods of "Risk Assessment" procedures i.e. application of checks and balances as the Organization's operations are vibrant and subject to changes due to time scale.

One of the methods for such an assessment is Risk Assessment procedure. These are explained below in nutshell for usage by the Auditor in their own style and design.

Audit risk

It means the risk that auditors may give an inappropriate audit opinion on financial statements. Audit risk has three components:

a. inherent risk,
b. control risk and
c. detection risk

Inherent risk

It is the susceptibility of an account balance or class of transactions to material misstatement, either individually or when aggregated with misstatements in other balances or classes, irrespective of related internal controls.

Control risk

It is the risk that a misstatement that could occur in an account balance or class of transactions and that could be material, either individually or when aggregated with misstatements in other balances or classes, would not be prevented, or detected and corrected on a timely basis, by the accounting and internal control systems.

Detection risk

It is the risk that auditor's substantive procedures (tests of details of transactions and balances or analytical procedures) do not detect a mis-statement that exists in an account balance or class of transactions that could be material, either individually or when aggregated with misstatements in other balances or classes.

An internal auditor has to continuously assess the position of Organization activities from time to time and adopt the appropriate methods that suit the company based on the situation and Organizational requirements.

Internal Control Evaluation

Internal control is the integration of the activities, plans, attitudes, policies, applicable laws and regulations, and efforts of the people of an organization working together to provide reasonable assurance that the organization will achieve its objective and mission. The internal audit function constitutes a separate component of internal control with the objective of determining whether other internal controls are well designed and properly operated.

The role of the internal auditor encompasses:

- Evaluation of the efficiency and effectiveness of controls
- Recommending new controls where needed – or discontinuing unnecessary controls
- Using control frameworks
- Developing control self-assessment.

Internal control system extends beyond those matters which relate directly to the functions of the accounting system. The internal auditor should gather fair understanding of control environments such as,

- Management's philosophy and operating style
- Integrity and ethical values
- Entity's organizational structure and methods of assigning and reviewing authorities
- Organizational policies and procedures are in place and in operation, including policies on Risk Management, HR related policies, IT policies, Data Security Policies, etc.
- There is a regular system of reviewing and updating the policies and procedures.

Internal controls may be either preventive or detective. The internal auditor should ensure that in general, the approval function, the accounting/reconciling function, and the asset custody function is separated among employees of the entity. When these functions cannot be separated due to small department size, the internal auditor should ensure that a detailed supervisory review of related activities is in practice, as a compensating control activity. The internal auditor should use his professional judgment to assess and evaluate the presence and maturity of entity's internal controls. He should use narratives, flowcharts, questionnaires for obtaining understanding of each department and its business and accounting processes. The internal auditor should identify internal control weaknesses that have not been corrected and make recommendations to correct those weaknesses. When internal controls are found to contain continuing weaknesses, the internal auditor should consider whether:

- Management has increased supervision and monitoring;
- Additional or compensating controls have been instituted; and/or
- Management accepts the risk inherent with the control weakness.

The internal auditor should communicate significant deficiencies and material weaknesses to management and those charged with governance.

Risk Assessment

Risk assessment involves the identification and analysis of risks underlying the achievement of objectives, including risks relating to the changing regulatory and operating environment and business strategy, as a basis for determining how such risks should be mitigated and managed. Risk affects an organization's ability to survive and successfully compete. However, avoiding risk completely is never possible and thus, the management must decide how much risk can be prudently accepted and strive to maintain risk within this level. Setting objectives is a pre-condition to risk assessment and management. It is a prerequisite for and enabler of internal controls, although not a component as such. These should be expressed around the future rather than the past or present and should be focused on achievable goals. The management should consider whether any existing objectives are able to meet the challenges that it is likely to face over, at least, the next two to three years. By setting high level objectives at the entity level and more specific objectives at the activity level, an entity can identify factors that are critical to the achievement of goals.

There are various techniques used to identify risks including the periodic reviews of economic and industry factors affecting the business, senior management conferences and meetings with industry analysts. Whatever method be adopted, the management needs to consider carefully the factors that contribute to or increase risk, including issues such as past experience of failure to meet objectives; quality of personnel; significant changes, such as increased competition; legislative, regulatory and personnel changes; market developments, and the significance of particular activities to the entity and their complexity.

Risk should also be identified at the activity level, which can help to focus risk assessment on major business units or functions and also contribute to maintaining acceptable levels at the entity-wide level. Following the initial identification of the significant risks to the company achieving its objectives, it may be useful to consult throughout the company on issues such as:

a. awareness of the company's business objectives, business strategy and related significant risks;
b. the company's risk management policy;
c. whether the control strategies adopted are effective and what needs to be done to put them into effect;
d. the fundamentals of good risk management and internal control and ways in which improvements can be made in order to mitigate the significant risks affecting the ability of the company to achieve its business objectives;

This consultation can help to identify whether the management has identified all the significant risks relevant to the objectives. It can also provide the management with a solid foundation for its review of the effectiveness of internal control and for its reporting on control. Following the identification of entity-wide and activity risks, a risk analysis should be performed. Once the significance and likelihood of risk have been assessed, the management needs to consider how the risk should be managed. Fundamental to risk assessment is a process to identify changed conditions and take action as necessary. Mechanisms to identify relevant and important changes should, as far as possible, be forward looking and early warning systems should be in place to identify data signals of new risks.

The final step in the process is that of prioritizing risk. Risks may be prioritized according to their impact and likelihood.

a. Require immediate action;
b. Consider action and have a contingency plan;
c. Consider action and
d. Keep under periodic review.

The impact should be considered not merely in financial terms, but more importantly, in terms of potential effect on the achievement of the company's objectives. Not all risks will be identified as significant. Non-significant risks should be reviewed regularly, particularly in the light of changing external events, to check that they remain non-significant.

It should be noted that, while risk assessment is a part of the internal audit function, the plans, programs and other actions deemed necessary to address the risks are an essential part of the overall management process but are not regarded as an element of the internal audit.

Risk Management Process

Risk management is the management function used for developing, maintaining and implementing the Risk Management Framework, strategy and policy. Risk management systems help in enhancing the organization's ability to manage uncertainty by protecting assets whilst ensuring compliance. Many organizations in India and around the world continue to be ignorant of the need and importance of a robust risk management system. The internal auditor should identify the need for a change in behaviour and mindset in relation to risk management as and when:

- Every function or process does not have one or more well defined risk factors that act as indicators to risk assessments
- Risk awareness among staff and management is low
- The organization begins to focus on financial control of expenses rather than a broad level internal control through guidelines
- The top level management start believing that risk management is not their concern and agenda in meetings
- Internal control system review is viewed as a compliance report rather than a daily activity
- There is a lack of clearly defined business objectives in the short term

The process of risk management generally involves:

1. A clear understanding of the organization's long and short term objectives
2. Identification of the risks associated with non-performance or deviation from set objectives
3. Assessment of the probability and potential impact of particular risks factors that are crucial to achieving operational performance
4. Development of action plans and delivery programs to address the identified risks
5. Monitoring and evaluating the risks on a continuous basis

Every area of an organization whether it is strategy, operations, accounts, human resources and environment. Examples of such risks are loss of key staff, reductions in financial and other resources, disruptions to the flow of information and communications, fires or other physical disasters, leading to interruptions of business and / or loss of records. Generally, risk should also include issues related to fraud, waste, abuse and mismanagement.

Some of the **types of risks** that may need to be considered are given below, however, this list should not be regarded as exhaustive and it is not industry specific. Actual risks faced by a company are likely to include more industry-specific types of risks and to relate to the particular circumstances of the company.

A. **Business Risks**

- Political risks
- Adverse government policy
- No attention to information technology (IT) aspects of strategy and implementation
- Obsolescence of technology
- Substitute products
- Takeover target
- Inability to obtain further capital
- Bad acquisition
- Too slow to innovate and reengineering
- Too slow to respond to demands from market and customers

B. Financial Risks

- Market risk
- Credit risk
- Interest risk
- Currency risk
- Treasury risk
- Liquidity risk
- Overtrading
- High cost of capital
- Misuse of financial resources
- Going concern problems
- Occurrence of types of fraud to which the business is susceptible
- Misstatement risk related to published financial information
- Breakdown of accounting system
- Unreliable accounting records
- Unrecorded liabilities
- Penetration and attack of IT systems by hackers

- Decisions based on incomplete or faulty information
- Too much data and not enough analysis
- Unfulfilled promises/pledges to investors

C. Compliance Risk

- Breach of Listing Rules
- Breach of financial regulations
- Breach of Companies Ordinance requirements
- Breach of competition regulations
- Breach of other regulations and laws
- Litigation risk
- Tax problems
- Health and safety risks
- Environmental problems

D. Operations and Other Risks

- Inefficient / ineffective management process
- Business processes not aligned to customer / market demand and strategic
- goals
- Loss of entrepreneurial spirit
- Missed or ignored business opportunities
- Other business probity issues
- Other issues giving rise to reputational problems
- Poor brand management
- Failure of major change initiative
- Inability to implement change
- Stock-out of raw materials
- Skills shortage
- Physical disasters (e.g., fire and explosion)
- Computer viruses or other system malfunctions
- Failure to create and exploit intangible assets
- Loss of intangible assets
- Loss of physical assets
- Loss of key people
- Loss of key contracts
- Lack of orders
- Lack of business continuity
- Succession problems
- Inability to reduce cost base

- Over-reliance on key suppliers or customers
- Onerous contract obligations imposed by major customers
- Failure of new products or services
- Failure to satisfy customers
- Poor service levels
- Quality problems
- Product liability
- Failure of major projects
- Failure of big technology related projects
- Failure of outsource providers to deliver
- Lack of employee motivation or efficiency
- Industrial action
- Problems arising from exploiting employees in developing countries
- Inefficient / ineffective processing of documents
- Breach of confidentiality

Risk management is essential for reducing the probability that corporate objectives will be jeopardized by unforeseen events. The board must determine the type and extent of risks that are acceptable to the company, and strive to maintain risk within these levels. Internal control is one of the principal means by which risk is managed.

In the business world, a company's objectives and the environment in which it operates are continually evolving and, as a result, the risks that it faces also change. A sound system of internal control depends on a thorough and regular evaluation of the nature and extent of the risks to which the company is exposed. The systems and processes of control need to be sufficiently flexible to be able to change and adapt as the environment and the company's organization, objectives and activities develop over time. The purpose of internal control is to help manage and control risk appropriately, rather than to eliminate it.

Fundamentals of a good Risk management and Internal Control system

The basic fundamentals of a good Risk management and Internal Control system including but are not limited to:

1. Risk Awareness
2. Integrated consultation and business decision making process
3. Continuous emphasis on internal control and strategy
4. Focus on Business Objectives
5. Crash Gates and Early Warning mechanisms to enable quick responses
6. Reliable and Timely business information

Thus, an effective, efficient and progressive risk management system and policy would help the organization reduce the time management spends "fire-fighting", increase in change initiatives, lower the cost of capital, provide useful feedback and information for strategy setting, achieve and maintain competitive advantages and reduce uncertainty of results and events.

In order to embed the risk management process firmly into the organization, all employees must be trained and should have the necessary knowledge, skills, information and authority to establish, operate and monitor the system of internal control. This will require an understanding of the company, its objectives, the industries and markets in which it operates and the risks that it faces. In addition, the business process should be so modified that they incorporate risk management as a part of the everyday working. As an elaborate risk management process can be a distraction from the key point, which is that incorporating control within existing processes enables each person in the organization to become more focused on meeting the business objectives and in managing significant risks that relate to the tasks performed. Reduction of duplicate or repetitive controls within the work environment help increase the empowerment for people within the company to work to satisfy the needs of customers.

Chapter 9
Internal Audit in ERP Environment and Systems Audit

Financial and operational transactions are increasing in volume and it increases complexity every day. In today's business environment, auditors should have knowledge of both accounting and technology. The technical complexity of ERP system has forced auditors to increase their knowledge of information technology. When a company uses an ERP system the audit focus shifts from substantive testing of the books of account to understanding the business processes, testing the systems and applications controls etc. At the same time, auditors must ensure that the system is automating the process correctly.

In ERP systems, operational and financial data are tied together through a complex information flow. Transactions can be automatically entered without review or pre-checking with the ERP system. For this such controls should be designed to prevent inaccurate or false information entering in the system. So auditing must be done through the computer in ERP environment. Accountants and company management need to be aware of the risks involved with an ERP system. Today, with the implementation of integrated ERP systems, internal controls are developing itself to support automated operational management. As a result, finance officers have changing their approach and implementing automated internal controls that allow managers to effectively manage through ERP systems.

An ERP system automatically updates the data throughout the system once a transaction has been entered. Because the information is updated, maintained and stored electronically, auditors need to understand how the modules interact with each other and with the database. Auditors must spend more time with lower-level employees in ERP system to determine what they are doing while entering the data, and especially what to do if a mistake is made.

Definition

Enterprise resource planning (ERP) systems integrate internal and external management information across an entire organization, embracing finance/accounting, manufacturing, sales and service, customer relationship management, etc. ERP systems automate this activity with an integrated software application. Their purpose is to facilitate the flow of information between all business functions inside the boundaries of the organization and manage the connections to outside stakeholders. ERP systems can run on a variety of computer hardware and network configurations, typically employing a database as a repository for information.

Characteristics of ERP

The following are the characteristics of ERP System:

- The database is usually centralized and as the applications reside on multiple users, the system allows flexibility in customization and configuration.
- The processing is real time online whereby the databases are updated simultaneously by minimal data entry operations.
- The input controls are dependent on pre data acceptance validation and rely on

transaction balancing; time tested controls such are batch totals etc. are often no longer relevant.

- Since the transactions are stored in a common database the different modules update entries into the database. Thus data-base is accessible from different modules.
- The authorization controls ere enforced at the level of application and not the data-base; the security control evaluation is of paramount importance.
- Auditors have to spend considerable time understanding the data flow and transaction processing.
- System heavily dependent on networking on a large scale.
- Vulnerability by increased access is a price that is paid for higher integration and faster processing of data in an integrated manner.
- The risk of single point failures is higher in ERP solutions; Business Continuity and Disaster Recovery should be examined closely.

Risks in ERP

ERP systems are implemented to support the operations of an enterprise and to be successful, must be fully integrated into all the significant processes and procedures that together enable the enterprise to work effectively. Given the integrated nature of ERP systems, they can further add to the enterprise's risks or challenges related to:

- Industry and business environment
- User or management behaviour
- Business processes and procedures
- System functionality
- Application security
- Underlying infrastructure
- Data conversion and integrity
- On-going maintenance/business continuity

The risks associated with the implementation and ongoing use of an ERP system cannot be determined or controlled by review of application or technical risks in isolation, but must be considered in conjunction with the business process control objectives of the enterprise being served. The challenge to the audit professional is, obtaining an understanding of the business and regulatory environment in which the enterprise operates and being skilled in the identification of quantifiable application or technical risks and less quantifiable procedural or behavioural risks.

Typically, in a large enterprise where the quantity of data processed by the ERP system is extremely voluminous, the analysis of patterns and trends proves to be extremely useful in ascertaining the efficiency and effectiveness of operations. Most ERP systems provide opportunities including specific tools for such extraction and analysis. The use of data analysis tools within the ERP system can assist the audit professional throughout the ERP system's life cycle (i.e., pre- and post-implementation).

Impact on Internal Audit

Following are the impacts on internal audit:

a. Lack of transaction trails

Some ERP systems are designed so that a complete transaction trail that is useful for audit purposes might exist for only a short period of time or only in computer readable form. Where a complex application system performs a large number of processing steps, there may not be a complete trail. Accordingly, errors embedded in an application's program logic may be difficult to detect on a timely basis by manual procedures.

b. Uniform Processing of Transactions

Computer processing uniformly processes like transactions with the same processing instructions. Thus, the clerical errors ordinarily associated with manual processing are virtually eliminated. Conversely, programming errors (or other systematic errors in hardware or software) ordinarily result in all transactions being processed incorrectly.

c. Lack of Segregation of Functions

Many control procedures that would ordinarily be performed by separate individuals in manual systems may be concentrated in ERP. Thus, an individual who has access to computer program, processing or data may be in a position to perform incompatible functions.

d. Initiation or Execution of Transactions

ERP may include the capability to initiate or cause the execution of certain types of transactions automatically. The authorization of these transactions or procedures may not be documented in the same way as those in a manual system, and management's authorization of these transactions may be implicit in its acceptance of the design of the ERP and subsequent modification.

e. Potential for errors and irregularities

The potential for human error in the development, maintenance and execution of ERP may be greater than in manual systems, partially because of the level of detail inherent in these activities. Also, the potential for individuals to gain unauthorized access to data or to alter data without visible evidence may be greater in ERP than in manual systems. In addition, decreased human involvement in handling transactions processed by ERP can reduce the potential for observing errors and irregularities. Errors or irregularities occurring during the design or modification of application program or systems software can remain undetected for long periods of time.

f. Dependence of Other Controls Over ERP

ERP may produce reports and other output that are used in performing manual control procedures. The effectiveness of these manual control procedures can be dependent on the effectiveness of controls over the completeness and accuracy of computer processing. In turn, the effectiveness and consistent operation of transaction processing controls in computer applications is often dependent on the effectiveness of general ERP controls.

g. Management supervision

ERP can offer management a variety of analytical tools that may be used to review and supervise the operations of the entity. The availability of these additional controls, if used, may serve to enhance the entire internal control structure.

Due to increase in volume in business operational transactions and its complexity in nature certainly traditional recording of transactions does not compete with the pace to reach its object. There arises the need of ERP environment in an organization of massive transactions. Mining and metallurgy is such an industry that needs and ought to use technology edge available in the market. This situation or business compulsion put the auditors to have knowledge on both accounting as well technology.

Internal Audit in ERP environment is based on the data being generated by the system which is customized to the requirements of the Organization as agreed up on by the service provider and the Company. As it is a well-known fact that ERP environment eases the job of various functions in an Organization like Accounts, Production, HR (in broad sense), Marketing, Inventory management, QC, Mechanical, Other Engineering departments, Finance (Broad sense including Treasury, Costing, auditing, taxation etc.), Sales and MIS as mass data is being stored, accounted and managed to avoid duplication in a systematic way and predesigned reporting pattern.

Internal Audit function-ERP environment-challenges:

Internal audit function mainly focus on internal controls of the Organization to move forward and establishing the reports with facts. However ERP systems have many embedded parameters like

- ✓ Process parameters,
- ✓ Operational parameters,
- ✓ Cost sharing methods,
- ✓ Legacy applications,
- ✓ Financial Integration etc.

As the correctness of input data which becomes control data is the key source information that validates and integrates the rest of operational results financial integration is vital and crucial. Auditor has to apply the checks and test the same at the foundation level and base the results to analyze the Reporting pattern.

Systems audit

Systems audit is an examination of management's controls within an IT Infrastructure. The evaluation of obtained evidence determines if the information systems are safeguarding assets, maintaining data integrity, and operating effectively to achieve the organization's goals or objectives.

A systems audit is different from a financial statement audit. While a financial audit's purpose is to evaluate whether an organization is adhering to standard accounting practices, the purposes of a systems audit are to evaluate the system's internal control design and effectiveness. This includes, but is not limited to, efficiency and security protocols, development processes, and IT governance or oversight. Installing controls are necessary but not sufficient to provide adequate security. People responsible for security must consider if the controls are installed as intended, if they are effective if any breach in security has occurred and if so, what actions can be done to prevent future breaches. These inquiries must be answered by independent and unbiased observers. These observers are performing the task of information systems 27 auditing. In an Information Systems (IS) environment, an audit is an examination of information systems, their inputs, outputs, and processing.

Conclusions, Limitations, and Future Research

ERP systems adoption leads to a significant change in the information processing environment at the organization. The transition from fragmented ad hoc systems to integrated systems allows for automated and document flows, eliminates replications and the resulting inconsistencies in the data. They allow for built in controls to data verification and data integrity. Yet these systems are complex and require significant effort in implementing and specialized skills in customizing in maintaining the systems. ERP adoption thus leads to new risks during both during implementation and operational stages.

ERP systems generally lead to significant improvements in internal audit function's ability to assess and manage risk in most risk categories. On the other hand, there is an increase in the levels of technology risk factors and operational risk factors, a decrease in financial risks, and wider variation in miscellaneous risk factors. Post implementation of ERP systems, internal auditors are spending more time in quality assurance in processes rather and less time in managing crises. However, as is the case with most organizations, loss of time and effort tend to increase when internal auditors do not play a more important role in implementation, particularly in defining internal control or being part of the reengineering effort necessitated by ERP adoption.

Thus, to conclude, the internal audit can help to identify, review, and provide recommendations for key controls associated with the project and can provide assurance that the ERP system will support business processes and enforce business controls on an ongoing basis. The use of collaborative internal auditors on all critical phases of an ERP project is the best approach to increasing the likelihood of a successful ERP adoption.

Chapter 10
Relying on External Opinion and Reference of Auditor Expert

Recent developments in businesses around the globe require specializations in addition to the internal audit competences which are offered by experts and these experts are increasingly being involved throughout the entire internal audit function. The organization or the head of the internal audit function may opt for an auditor's expert or an external opinion is as follows:

1. Risk may increase when other expertise is needed to assess the processes, activities or risks.
2. Utilize competence and capabilities which are specialized in nature.
3. Keep the situation under review as the audit progresses − circumstances may change.
4. Nature, significance and complexity of the subject is highly sensitive to the organization's performance.

The key to success areas in managing external providers or auditors' experts, involve but are not limited to:

- Defining the objectives of the assignment
- Resources of time, effort and money available for the assignment
- Considering the experts' experience and knowledge in providing internal audit
- support service
- Selection of the expert with appropriate experience, knowledge and value addition basis
- Monitoring expert's technique of working and evaluating the results
- Nature, importance and complexity of the assignment

Another key safeguard in ensuring that the expert delivers a quality internal audit service is that the expert allocates sufficient time and effort to audit assignments and has in place effective supervision arrangements, including sufficient review by the internal audit team. It is preferable to include a clause in the contract nominating the expert who will provide the audit services and to may require the organization to be consulted before such assignment is shared.

Generally, internal auditors are not part a of large service firms, which may also be seeking to provide other services to the company as this can generate a conflict of interest and limit the ability of the internal audit function to review parts of the organization. Organization also engage more than one internal audit service provider, so as to ensure work undertaken by a firm is not reviewed by the same firm. It should also be noted that a firm engaged as an internal auditor must retain the key responsibility of objectivity and independence even if a different part of the same firm is engaged in consultancy work within the organization.

Even though the internal audit function may be completely outsourced, responsibility for the overall efficiency and effectiveness of the internal audit function remains with the organization. It is therefore important for the management retains control of the internal audit strategic direction and to actively monitor the performance against the internal audit work plan and manual.

The internal audit function must always be assigned to a senior employee of the organization to manage the delivery timelines corresponding to the internal audit work plan. The organization's representative has specific responsibility for activities such as monitoring the internal audit function's performance, managing the contract and the relationship with the internal audit function and setting up formal communication channels. Such a resource is of assistance to the internal audit team as it can act as another level of confirmation / vetting on internal audit findings and recommendations. In larger organizations with complex structures and hierarchies, the internal audit team to understand particular organizational working culture and provide advice on sensitive matters.

Work performed by others

Internal auditor would invariably require delegating work to assistants. At times, services of an expert might also be sought. The internal auditor would, however, continue to be responsible for his opinion on the activities being subject to internal audit or his findings. The internal auditor should carefully direct, supervise and review the work delegated to assistants. The amount of supervision required depends on the skill and experience of the assistant on the job. The supervisory role of the internal auditor includes:

- Providing suitable instructions for the audit.
- Approving or recommending the approval of the audit plan.
- Ensuring that the audit program is completed.
- Ensuring that working papers adequately support the audit findings, conclusions and reports.
- Ensuring that the reports are unambiguous, accurate and concise.
- Ensuring that the audit objectives have been met.

The majority of the matters listed are seldom referred to in auditing texts, and most candidates will not have come across them in real-life audit situations. However, in diverse economies, expert opinions from an array of disciplines are often required by auditors – in particular those involved in the audit of large companies (for example, banks, insurance companies and mining and exploration companies). In this respect, candidates may wish to consider the issues faced by an auditor when auditing the reported liabilities of a company that has made a provision for costs arising as a consequence of an environmental disaster for which the company is culpable. On a more basic level, where companies own expensive jewelry, works of art or antiques – either as trading or as investment assets – auditors may need to rely on the opinion of their own experts if they do not have other sufficient appropriate evidence to support 'valuation' assertions made by management.

An auditor's expert needs to be competent, capable and objective if their services are to be deemed adequate for the audit purpose. Let's deal with each of these attributes.

- Competence – relates to the nature and level of expertise of the expert. Clearly, any expert employed should have widespread recognition of their expertise in the stated discipline.
- Capability – relates to the expert's ability to exercise that competence in the circumstance of the audit engagement. For example, the expert must have the time and resources available to perform the task in hand.

- Objectivity – relates to the possible effects that bias, conflict of interest or the influence of others may have on the judgment of the expert.

If an expert has a vested interest in expressing anything other than objective opinion with regard to the subject matter, then their opinion will be of no value to the auditor. If an auditor's expert does not fulfill the requirement in respect of each of the above attributes, the risk of error or inaccuracy in the work carried out is increased and, therefore, the objective of minimizing the risk of not detecting material misstatement may not be achieved.

Consequently, the auditor's quality control procedures should ensure that internal experts (who are part of the audit engagement team) are capable, competent and objective. Where an audit firm is seeking to engage a new internal expert, or alternatively rely on the services of an external expert, information about the competence, capability and objectivity of the expert may be sought from various sources. These include:

- personal experience with previous work of the expert
- discussion with the expert
- discussion with other auditors who are familiar with the expert's work
- Knowledge of the expert's qualifications, membership of a professional body or industry association, license to practice, or other forms of external recognition published papers or books written by the expert.

An auditor may use to obtain information about the competence, capability and objectivity of a management's expert. When evaluating the findings and conclusions of the auditor's expert for audit purposes, the auditor may carry out various procedures, including:

- inquiries of the auditor's expert
- reviewing the auditor's expert's working papers and reports
- corroborative procedures such as: - observing the auditor's expert's work - examining reputable statistical reports and other authoritative published data - confirming relevant matters with third parties- performing detailed analytical procedures, and - performing calculations
- Discussion with another expert with relevant expertise
- Discussing the auditor's expert's report with management.

Relying on External Opinion

Though the internal auditor will be entitled to rely on the work performed by other auditors and experts, he should exercise adequate skill and care in ascertaining their competence and skills and also in evaluating, analyzing and using the results of the work performed by the experts. He must also look into the assumptions, if any, made by such other experts and obtain reasonable assurance that the work performed by other auditors and experts is adequate for his purposes. He should be satisfied that he has no reasons to believe that he should not have relied on the work of the expert. The reliance placed on the work done by the assistants and/ or other auditors and experts notwithstanding, the internal auditor will continue to be responsible for forming his opinion on the areas/ processes being subject to internal audit or his findings.

If the auditor concludes that the work of the auditor's expert is not adequate for the auditor's purpose and the auditor cannot resolve the matter – by either agreeing that the expert should carry out further work or by the auditor carrying out additional audit procedures as appropriate. With the permission of the expert, it may be appropriate to refer to the auditor's expert in the auditor's report. Conversely, unless there is a legal or regulatory requirement, there should not be any reference to the work of the auditor's expert in an unmodified report.

The internal audit function must include the internal audit manual and strategy in the assignment contract. The contract should establish robust performance and quality measures and the performance of the internal audit function should be formally assessed from time to time.

An internal auditor at times needs to rely on external opinion or reports of third parties to form an opinion and to generate Audit reports on the assignments being handled. Such a situation normally arises in the areas where

- An internal auditor could not arrive at conclusions where technicalities are involved in assessment of audit evidence/documentation obtained from the internal sources appears to be misleading or insufficient or
- Where the auditor is of the opinion that the documentation so collected internally needs further technical support from external source to establish the audit findings.

Examples:
Environmental issues: Provision for creating **GREEN BELT AREA-COMPANY POLICY** vis-a-vis Environmental Regulations and sustainable Developments-various Court Pronouncements etc.

Captive Mining Policy

This area where an internal auditor has to carefully exercise professional skill in Reporting as the Government (Center/ State) has declared a policy where mining operations could only be conducted by the government or government controlled enterprises. Over the years this policy position has evolved to allow captive mining by private companies who are engaged in the areas of production of iron, steel or power generation in selected regions.

In this aspect an Internal Auditor has to note that the mineral resource classification system being followed in India is the United Nations Framework Classification (UNFC) style of classification. All the minerals, including coal, are classified under various categories of this system depending upon the level of confidence in their measurement and classification

Expert-Geologist Reports on Mining plan , lay out, operational planning and extraction of Ore etc. needs to be examined and if necessary check with the third party Reports for arriving at conclusions.

Chapter 11
Audit Conclusion and Corrective Measures

What is an Internal Audit Finding:

It is nothing but a classification of major or minor control weakness in the system or an omission, an exception or observation of rule or regulation or violation of law.

Internal Audit Findings are the combination of observations, recommendations and results that the internal audit team collects in the course of audit and by the conclusion of the investigation and audit.

Therefore there are some fundamental principles for giving Audit conclusions which shall cover inter alia:

a) It should be accurate, concise, clear, objective, constructive and timely.

b) The purpose and objective to which it is intended shall be kept in mind.

c) The report shall convey the Management and Audit Committee the very purpose of the report and its scope clearly.

d) A report shall be in a position to quantify the Observations, deviations that occurred during the currency of the audit and its impacts in both quantitative terms as well as in financial terms.

e) The Report shall indicate guidance on the suggestions for its rectification if any and future guidelines for adherence/implementation by the Company. That is to say that the audit findings summary should be sufficient to identify the weakness in controls and should have supporting facts to the extent of pointing out and should suggest remedial measures.

The preliminary step is to evaluate all the evidence and observations that the internal audit team has collected against the internal audit objective and criteria. Internal audit evidence includes any factual information or data collected while pursuing the internal audit. The internal audit objectives and criteria as mentioned in the internal audit charter must include the standards, procedures, rules and regulations of the organization that must be considered during the internal audit. Such criteria state the requirements that the organization must confirm to and the limits that the internal auditor must work within. The internal audit findings help to identify conformance or otherwise with the internal audit criteria. The Internal audit function must provide data and evidence of both conformance and non-conformance.

Where the internal auditor has to identify areas or opportunities for cost reductions and/or improvements in productivity, the audit findings must also include observations or inefficiencies and ineffectiveness. The Internal audit findings of all stages must be summarized along with the conformity requirements and should also include details of areas, functions or processes that were covered under audit.

The management of organizations usually focuses on nonconformities or inadequacies of control. They are more interested in knowing what needs to be corrected or fixed than what is being done correctly and need no change. Thus, all evidence supporting nonconformities should be well documented and recorded. All irregularities may also be grouped based on the level of impact to the organization such as minor, major or potentially risky. However, at times the management takes the onus of defining the severity of the nonconformity as well as the corrective action plan.

Even though the management may be in a better position than the internal audit team to determine the appropriate action plan, the internal audit team can accurately gauge the significance of the irregularity with their multi company and industry exposure. Thus, the management and internal audit team must work closely to assure all nonconformities are well documented, assessed and corrective action plans are implemented.

Internal audit findings are recognized at every stage during the course of the audit. But, conclusions are only determined at the end of the entire audit exercise. All observations and information meeting the qualitative and quantitative criteria as determined in the internal audit charter form the basis for these audit conclusions. An in-depth review of all audit findings leads to a comparison between the inputs to achieve a progressive output.

After considering the inherent uncertainties of the internal audit process such as test checks, the internal audit team should first internally agree on the audit conclusions and forward the same to the management via the head internal auditor. Usually, the head internal auditor chairs this meeting and decides on any conflicting views to finalize the audit conclusions all the while seeking consensus of the entire internal audit team. The audit conclusions must be finalized only after considering and evaluating all options and recommendations.

Audit conclusions can address several issues and given below are common issues that conclusions address:

1. Audit conclusions aid to ascertain the effectiveness of control exercised by the management system when compared to the audit criteria.
2. Audit conclusions must have a detailed assessment of the effectiveness of implementation, maintenance and improvement of the control system. The internal audit function must note the procedure for deployment of the organization's control system along with whether the system maintenance based on adhering to requirements, correcting irregularities and taking corrective action. Any prospects for improvement must be incorporated as the audit conclusion through preventive and innovative actions.
3. Audit conclusions may also assess the capability of the management data collection and review process. The management must be able to assure continuing suitability, adequacy, effectiveness and improvement of the control system and operational effectiveness.

The Corrective Action Process is the final step of the Internal Audit Process and is used wherever corrective action is warranted. As findings are identified through the internal audit process, the Internal Audit Team will discuss the findings with the management and confirm with an understanding of both the data and the process, and validate that the facts of the finding are correct.

Throughout this process, the managers responsible for change or corrective measure implementations are identified, and provide a recommendation on how to resolve the finding appropriately. Once the internal audit report is shared, the finding may be loaded into a Corrective Action Database and followed-up on. Quarterly meetings may be held with the management to communicate the status and provide updates for each open finding. A general checklist of corrective action would include:

1. The first step to undertake corrective actions is to ensure the internal audit function accurate understands the finding that has been identified. The Management must work with the internal auditor to understand the source of the data, the significance of the risks identified. The main goal of this step is to identify risk and proceed to fixing it appropriately.

2. The employee or manager in charge of the area of concern or at risk must be shared the authority to lead the action plan to revise the present practice. Ideally, the assigned manager must be able to understand how the process works, and provide informed ideas, make empowered decisions and be involved with the internal audit function during identification of the finding.

3. Control systems can be defined as a set of processes intended to ensure an expected outcome with minimal variances. The extent to which these control systems should be implemented would be based on the relative risk of failure and the significance of the risk. There are different types of control systems and depending on the desired action, the appropriate control system is selected. Any preventative control is designed in such a way that a predefined corrective action is undertaken prior to the commencement of the process. A detective control is designed to identify and highlight any deviations or variances from the set tolerance levels. A directive control is designed to guide the staff to follow the established rules and regulations which supports the ultimate objective.

4. Wherever deemed necessary, new control systems are setup and post evaluation of the steps for new controls, the next step is to develop timelines and crash gates for submission of the process audit and evaluation report. This report which is to be compiled by the internal audit function provides the first review to management of the estimated period required to resolve the nonconformity.

5. Post completion of these steps, a summary of the corrective actions is provided for the final report in the corrective action worksheet. This summary must include the “Action Planned v/s Taken” for each finding reported. The Corrective Action Worksheet is a document which not only helps document the corrective action process for each finding but also helps in tracking the follow up of actions implemented.

Thus, the Corrective Action process is the key to an effective control environment within an organization, and the Internal Audit Team will help to identify the right changes to be made in order to improve the organization’s operational success and maintain sustainability.

Chapter 12
Report Writing and Audit Report

Internal Audit reports should be accurate, objective, constructive, clear, concise, and timely. The Audit Report is the principal means by which audit findings are communicated to management and the Audit Committee for the purpose of reporting on the scope of the audit performed and the audit results. Each audit finding should be classified as a major control weakness, minor control weakness, exception, observation, or a violation of law, rule or regulation.

Principles of Report Writing

The internal audit reports should aim at giving clearly the conclusions of the internal auditor and should be so designed that they motivate all to perform better. Normally, ABC principle, i.e., accuracy, brevity and clarity need to be followed while drafting the internal audit report. Following are some of the other characteristics of a comprehensive and useful internal audit report:

- The audit findings contained in the internal audit report should be supported by indisputable facts and reflect verifiable result.
- The report should also contain suggested corrective actions and time plan thereof. The suggested corrective actions should be cost effective and amenable to implementation.
- Observations contained in the report should be classified according to their significance, so that management review can be held at appropriate levels, for instance, critical issues can be reviewed by top management while major/minor issues can be reviewed by respective departmental heads.
- Top management should be given summarized information of audit findings and action plan. An executive summary providing a crisp snapshot of the contents of the report, essentially, the findings and the recommendations is also quite helpful.
- Recommendations should be cost effective and possible to implement.
- Reports should be direct and straight forward written in a consistent style.
- Words should be chosen bearing in mind the sophistication of the addressee.
- Jargons and technical terms should be avoided.

The Internal Audit Report's findings summary should be of sufficient detail to identify the control weaknesses, exceptions, observations or violations of law, rule, or regulation, and should include supporting facts to the extent considered necessary. The risk exposure presented by a control weakness should be identified. A recommendation for corrective action should be included for each control weakness, exception, observation and violation of law, rule, or regulation. The various types of findings are as follows:

1. **Major Control Weakness:** Identifies a control weakness that presents a high risk exposure or risk of loss, or that has a significant adverse effect on the achievement of an important operating objective

related to a core business process, key business activity, or critical business function. Major control weaknesses generally require prompt corrective action to reduce the risk exposure.

2. **Minor Control Weakness:** Identifies a control weakness that presents a low to moderate risk exposure or risk of loss, or that has a minor adverse effect on the achievement of an operating objective related to a business process, business activity, or business function. Minor control weaknesses generally require timely corrective action to reduce the risk exposure.

3. **Exception:** Identifies an error or occurrence (event) which did not conform to established policy or an established control procedure, or a condition which does not conform to generally accepted control principles or business practices, however, it does not constitute a control weakness. A related control weakness may exist, depending on the nature and pervasiveness of the exceptions. Exceptions generally require corrective action to remedy the exception.

4. **Observation:** Identifies a condition such as an operating policy, operating procedure, or operating practice that is not efficient or effective, however, the condition does not constitute a control weakness. Observations merit management consideration to realize improved efficiency or effectiveness.

5. **Violations of Laws, Rules and Regulations:** Identifies violations of laws, rules, or regulations.

Each Audit Report should include an overall internal control rating based on the audit findings. Commonly accepted ratings are as follows:

(i) **Satisfactory:** The internal control system is effective. Established control procedures reasonably assure the achievement of operating and control objectives. If control weaknesses exist, they are only minor control weaknesses. Risk exposure or risk of loss is low.

(ii) **Needs Improvement:** The internal control system is generally effective. Only minor control weaknesses exist, however, their effect on the internal control system is more pervasive and the achievement of important operating or control objectives is not reasonably assured. Risk exposure or risk of loss is moderate.

(iii) **Unsatisfactory:** The internal control system is ineffective. One or more major control weaknesses exist that have a significant adverse effect on the achievement of important operating or control objectives. Risk exposure or risk of loss is high.

A Draft Internal Audit Report should be issued to the process owners and any other individuals (i.e. executive management) included on the Distribution List. Draft Internal Audit Reports should be issued on a timely basis following the completion of each audit.

A written management response should be provided for each major control weakness, minor control weakness, exception, observation or violation of a law, rule, or regulation included in a Draft Internal Audit Report. As applicable, the management response to any finding should identify corrective action taken or planned and include a completion date for corrective action taken, or a target completion date for planned corrective action. Each management response should designate one comment owner.

Management has responsibility for establishing comment ownership.

All written management responses to audit findings noted in Draft Internal Audit Reports should be submitted to the Internal Auditor within a reasonable period of time (i.e. 10 calendar days) of the issuance date of the Draft Internal Audit Report. Reasonable deviations from this time requirement may be allowed for valid reasons such as illness, vacation, or unexpected demands on time to meet the operating needs of the department or organization.

In the event that the management does not concur with audit findings, conclusions, recommendations, or the internal control rating, identified in the Draft Internal Audit Report, management should, at its discretion, indicate the reason(s) in its written management response. Following receipt of management's written response to a Draft Internal Audit Report and prior to the issuance of a Preliminary Audit Report, the Internal Audit team should discuss with management and attempt to resolve any differences of opinion with regard to the Draft Audit Report audit findings, conclusions, recommendations, internal control rating or adequacy of a management response in terms of proposed corrective action.

Following receipt of a written management response to each audit finding noted in a Draft Internal Audit Report, the Internal Auditor should issue a Preliminary Audit Report that incorporates the written management responses. The Preliminary Audit Report should be issued to the individuals identified on the Distribution List. Management should have additional time (i.e. 5 calendar days) from the issuance date of the Preliminary Audit Report to review the Report and provide any additional or revised management response.

After expiration of the allowable time for management's written response, a Final Audit Report, incorporating management's written responses or non-responses to audit findings and any corrective action taken or planned, should be issued to the Audit Committee.

Any unresolved difference of opinion with regard to audit findings, conclusions, recommendations, internal control rating, or adequacy of a management response in terms of proposed corrective action should be arbitrated and resolved by the Audit Committee at their discretion. The Audit Committee's determination should function to resolve the difference of opinion and bind all parties to the resulting determination. In the event the Audit Committee is unable to arrive at a determination, for whatever reason, the matter should be resolved by the Board of Directors at their discretion.

An Internal Audit Report should ideally include the following:

1. Audit Name and Report Issuance Date;
2. Audit Report Addressee(s): Identifies the process owners to whom the Audit Report is directed;
3. Report Distribution List: Identifies all parties to whom the Audit Report is distributed;
4. Scope and Objective of the Audit: Identifies the major activities, processes and functions reviewed and identifies the time period the audit is meant to review (dates of sample tested documents and procedures);

5. Auditor's Conclusions and Internal Control Rating: Identifies the auditor's opinion regarding the adequacy and effectiveness of internal controls to include an internal control rating;
6. Narrative overview of the business activity and its associated internal controls;
7. List and detailed explanation of the Major Control Weaknesses, Minor Control Weaknesses, Exceptions, Observations and Violations of Law, Rules and Regulations noted during the audit;
8. Internal Auditor's Recommendation: recommendation for corrective action as it applies to each audit finding;
9. Management Response: A section for management to include its written response to the audit finding and state any corrective action taken or planned;
10. Target Completion Date: Identifies the date corrective action will be completed by management and
11. Comment Owner: Identifies the manager responsible for ensuring corrective action is taken as it applies to the audit finding.

Report Writing, Presentation and Follow-up

The internal audit report must be written after careful review and analysis of the various audit evidences, notes on internal control systems and risk assessments undertaking during the audit. In case internal auditors come across any fraud or misrepresentations or misappropriations, they have to be reported to the organization's management or Audit Committee. The internal audit report provides a formal platform to the internal audit team to share its findings, recommendations and comments to the management. The internal audit report should recommend actions for performance improvement and control, and formal records for areas wherein audit was undertaken.

The format and schedule for sharing of the internal audit report presentation should be agreed with the management prior to augment of the assignment. All functional managers should be communicated the audit findings related to their respective areas and final list of actionable decisions must be shared by appropriate management representatives to enable them to take informed decisions. Once, the management has provided for suitable consideration to the internal audit report, the decision points and thereby the recommended actions to be undertaken must be formally recorded along with clear statement of responsibility for completion of assigned tasks.

Internal Audit Report writing, Audit Report submission and its shooting to the concerned is the Art of Auditing. The very purpose of audit Reporting shall meets its object when it is clearly understandable and audit recommendations are accepted by the auditee. Therefore, the template or model audit Report format is indicative in its nature and not a 'Role model', as the Report format shall be tuned to its objective and based on the Scope of audit assignment.

However for general guidance the structure of an Internal Audit Report shall cover the following:

1: Brief Summary of Internal Audit Report

A) Name of the Unit audited :

B) Audit Period Covered as per approved IA Schedule :

C) Department/Area Covered under IA Scope :

D) Audit Risks Suggested areas (With quantified, if any)

i) High :

ii) Medium :

iii) Low :

1. Introduction

1.1 Name of the Auditee (unit audited)

1.2 Period covered under current audit

1.3 Brief description of duties/functions of Auditee

2. Objective and Scope

The objectives of this internal audit engagement were

a) (Objective)
b) (Objective)
c) (Objective)

3. Methodology

The methodology adopted by the Internal Auditor needs to get changed from time to time based on the Scope/subject and type of audit assignment and urgency of the requirement of the Management. Accordingly the checking tools like observation, obtaining sample evidence, the principle records to be checked.

This section should refer to the methodology adopted for conduct of Internal Audit engagement viz. interview, Observation, Sampling, Sample size used for checking Records, the number of records checked, type of records checked. It should also include checklists (if any) used during the engagement etc.

4. Results and Observations for action

a) Strengths observed during the audit engagement,

b) Weaknesses observed in the functioning of office, maintenance of records etc. observed during the audit engagement.

The very objective of Reporting shall be kept in mind while giving the Results and Findings in the Report. The summary should be as brief as possible and draw on the observations under the Para on Consequence/Effect/Impact of each Audit observation. It should also include a summation of outstanding statutory and Internal Audit observations.

5. Opinion

It is equally important that the Opinion of the Internal Auditor shall be communicated to the auditee in a lucid manner.

6. Audit Recommendations

The recommendations of Audit Team on the observed weaknesses shall be stated here.
This could be presented in a box of highlighted print. (to grab the attraction and immediate attention)

7. Acknowledgement

It is customary to state that the carrying of the task is possible with the Co-operation extended by the management and to express the acknowledgement of the help.

An Audit Report shall contain the data of Previous Audit points raised, closed and pending points that needs attention and rectification, before submission of the Present Report for action.

Chapter 13
Introduction to the Mining and Metallurgy Industry

About the Sector

Minerals are valuable natural resources being finite and non-renewable. Minerals are usually classified in four main groups i) metals; ii) industrial minerals (such as lime or soda ash, valued for certain special properties), iii) construction materials, and iv) energy minerals (i.e. coal). They constitute the vital raw materials for many basic industries and are a major resource for development. The history of mineral extraction in India dates back to the days of the Harappan civilization. The wide availability of the minerals in the form of abundant rich reserves made it very conducive for the growth and development of the mining sector in India.

The country is endowed with huge resources of many metallic and non-metallic minerals. Mining sector is an important segment of the Indian economy. Since independence, there has been a pronounced growth in the mineral production both in terms of quantity and value.

India produces as many as 89 minerals, which includes 4 fuel minerals, 11 metallic minerals, 52 non-metallic (industrial minerals) and 22 minor minerals (building and other materials). In India 80% of mining is in coal and balance 20% in various metals and other raw materials such as Gold, Copper, Iron, Lead, Bauxite, Zinc and Uranium. India's ranking in 2011 in world production was 2nd in Barytes and Talc/Steatite/ Pyrophyllite; 3rd in Chromite, Coal & Lignite and zinc; 4th in Iron ore, Kyanite/Sillimanite and Steel (crude); 6th in Manganese ore & Bauxite; 8th in Aluminium; 10th in refined Copper; and 11th in magnesite.

Type of Mines:

Once a commercially viable mineral deposit has been identified, the immediate problem is how to get it out of the ground. There are two ways of doing mining: by open pit mining and underground mining.

1. **Open Pit Mining:**

   An open pit is a surface excavation, usually conical in shape, dug for the purpose of extracting near-surface bodies of ore. The rock overlying the ore, called the overburden, is drilled and/or blasted and loaded into trucks that carry it away from the pit. The ore is then removed for initial processing. Most mines today are surface excavations.

2. **Underground mining:**

   Underground mining, which takes place when minerals lie deep beneath the surface, is only economical for high-grade ore. Underground mining depends on various methods of extraction like Pillar mining, Blast hole mining, Sub level mining etc. To get to the ore, a vertical shaft, horizontal entrance or passage (adit), or inclined passageway (winze) must be drilled for ore and waste removal, as well as to provide ventilation.

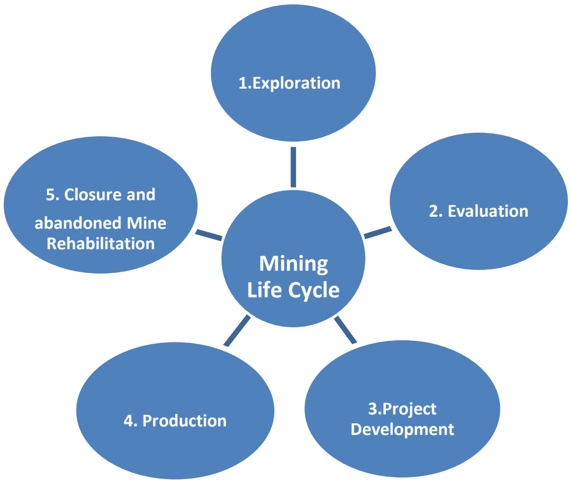
Placer mining is a widely used technique for extracting precious metals from sand or gravel deposits at or near the surface. The sand or gravel is mixed with water, which is then agitated so that the metals sink. The lighter unwanted material is then washed away. Panning for gold is a simple, small-scale example of placer mining.

There are several methods and approaches in each type of mining. The approach and choosing of the category of Mining/extraction depends on the survey report of Geological Survey and the availability of the ore or mineral from the earth bed. That is to say that for the same mineral mine both the categories of operations may be chosen - in other words a Coal Mine may be an open cast mine as well as underground mine. The manner in which a mineral or metal occurs in the earth's crust determines the type of mining operation required to extract it and the costs to develop a mine, as well as the amount of waste produced in the extraction process. In their exploration and development activities, mining companies typically carry out six pre-production stages:

- **(i) Prospecting:** Normally undertaken before mineral rights in an area have been acquired. Involves investigating an area's geological data and carrying out geochemical and geophysical surveys, as well as exploratory drilling and trenching.
- **(ii) Staking of claims and acquisition of interests**: Relates to obtaining a legal right to explore for, develop and produce minerals.
- **(iii) Exploration:** Involves activities similar to prospecting, but carried out in greater detail on areas with sufficient mineral potential to warrant exploration for commercially recoverable resources.
- **(iv) Evaluation and appraisal:** Determines the technical feasibility and commercial viability of mineral deposits found during exploration and the designation of proven and probable reserves. At this stage, decisions are made as to whether to develop a particular area.
- **(v) Development:** Pre-production activities undertaken to gain access to mineral reserves. Typically includes sinking shafts, permanent excavations, building transport infrastructure and initial removal of overburden.
- **(vi) Construction:** Establishes and commissions facilities, (e.g., buildings, machinery and equipment) to extract and transport minerals. Some construction may occur during the **development stage.**

Phases of operations

Mining activities begin with the exploration and evaluation of an area of interest. If the exploration and evaluation is successful, a mine can be developed, and commercial mining production can commence. The Mining Life Cycle can be divided into the five phase of operations as shown in the following figure:



Phase 1 – Exploration

'Exploration' means the search for resources suitable for commercial exploitation. Exploration activities encompass all actions in the field that precede feasibility studies. Exploration activities include:

- initial reconnaissance flights and geophysical surveys, stream sediment studies and other geochemical surveys,
- construction of access roads,
- clearing of test drilling sites, installation of drill pads and drilling rigs, benching, trenching/pitting,
- erection of temporary accommodation, and power generation for exploratory drilling.

Exploration activities also include determining the location, size, shape, position, and value of a body of ore using prospecting methods.

Phase 2 – Evaluation

'Evaluation' means determining the technical feasibility and commercial viability of a mineral resource. It includes:

- determining volume and grade of deposits;
- examining and testing extraction methods and metallurgical or treatment processes; and
- surveying transportation and infrastructure requirements, and conducting market and finance studies.

The evaluation stage usually produces a feasibility study that identifies proved or probable reserves and leads to a decision to develop a mine.

Phase 3 – Project Development

Project Development means establishing access to and commissioning facilities to extract, treat and transport production from the mineral reserve, and other preparations for commercial production. The development of a mine consists of several principal activities: conducting a feasibility study, including a financial analysis to decide whether to abandon or develop the property; designing the mine; acquiring mining rights; filing an Environmental Impact Assessment (EIA); and preparing the site for production. Preparation could cause environmental damage by excavation of the deposit to remove overburden (surface material above the ore deposit that is devoid of ore minerals) prior to mining.

The development phase may include such activities as

- sinking shafts and underground drifts,
- permanent excavations,
- overburden stripping and placing,
- constructing roads and tunnels; and
- road/trail, building and/or helicopter transport,
- drilling and trenching,
- erecting treatment plants, preparing disposal areas, and constructing services, infrastructure such as power line or generating plants, railways, water, supplies and sewerage, laboratories and amenities.

Phase 4 – Production

'Production' means the day-to-day activities of obtaining a saleable product from the mineral reserve on a commercial scale. It includes extraction and any processing before sale.

Phase 5 – Closure and Abandoned Mine Rehabilitation

A mine's operational life is considered to end either when the ore body is depleted or when the mine is closed for other reasons and the normal ore feed to the plant stops or production ceases. Closure occurs after mining operations have ceased and includes restoration and rehabilitation of the site

The likely costs of the closure phase include:

- employee severance costs,
- restoration,
- the costs of ongoing and post-decommissioning rehabilitation
- rehabilitation and environmental expenditure.

Legal and Regulatory Framework

- Mining and Metallurgy is the Industry having significant role in GDP growth of the Country. As the National Resources are in scarce that are available in nature needs to be protected and utilized to the optimum keeping in view of the future generation requirements. However these national resources need to be utilized to the Optimum in the economic development of the country in a balanced manner without hampering the nature's structure. This phenomenon helps in framing Regulatory mechanism coupled with environmental protection under the shade of various State and Center legislations as explained below.

  - Mines Act 1952,
  - Mines Rules, 1955
  - Mines and Minerals(Development and Regulation) Act 1957,
  - Mineral Concession Rules 1960
  - Mineral Conservation and Development Rules 1988
  - The Offshore Areas Mineral (Development and Regulation) Act, 2002
  - Offshore Areas Mineral Concession Rules, 2006
  - Atomic Energy Act, 1962
  - Atomic Energy (Radiation and Protection) Rules, 2004
  - Contract Labour (Regulation& Abolition) Act 1970

Important policies are as follows:

- National Mineral Policy, 2008
- New Coal Distribution Policy, 2007
- National Steel Policy, 2005

Some other enactments are as follows:

- Marble Development and Conservative Rules, 2002
- Granite Conservation and Development Rules, 1999
- State Minor Mineral Concession Rules
- Mining Leases (Modification of Terms) Rules, 1956
- Mines Rescue Rules, 1985

- Goa, Daman and Diu Mining Concessions (Abolition and Declaration as Mining Leases) Act, 1987
- CESS and other Taxes on Minerals (Validation) Act, 1992

Besides the above there are so many other important Acts, rules and regulations framed by Central and State Governments for compliance with an object of maintaining the balance between the act of mining and upkeep of environment. In this process, it is important to note that if the mine is to pass through the forest areas, necessary approval is to be obtained from the Forest Department and the company will be obliged to plant the requisite saplings to compensate the loss of forest occurs, if any, for environmental balancing. The various legislations and other Frame work applicable to Mining Industry are:

- The Environment and Protection Act.1986
- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1981
- National Green Tribunal Act, 2010
- The Indian Forest Act, 1927
- The Forest(Conservation)Act,1980
- The Wild Life (Protection) Amendment Act, 2002/1972
- The Biological Diversity Act, 2002
- The Public Liability Insurance Act,1991
- The National Environment Appellate Authority Act, 1997
- The Noise Pollution (Regulation and Control) Rules, May 2002
- Forest (Conservation) Rules, 2003
- Ozone Depleting Substances (Regulation) Rules, 2000

The internal auditor has a greater role in safeguarding the scarce resources of the Nation. Internal Auditor is to be vigilant and cautious in guiding the organizations for better and orderly performance. While doing the Internal Audit, compliance under the various statutes is to be ensured. A brief about the applicable law /rule/ policies is given below as a guidance and observation points to the Auditor for ensure their adherence in the Company.

The Mines Act 1952

The Mines Act, 1952 contains provisions for measures relating to the health, safety and welfare of workers in the coal, metalliferous and oil mines. According to the Act, the term 'mine' means "any excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on and includes all borings, bore holes, oil wells and accessory crude conditioning plants, shafts, opencast workings, conveyors or aerial ropeways, planes, machinery works, railways, tramways, slidings, workshops, power stations, etc. or any premises connected with mining operations and near or in the mining area".

The Mine Act lays down that every mine should make effective provisions for drinking water, conservancy, medical appliance, etc. It requires that in every mine there shall be arrangements for the conveyance to hospitals or dispensaries of persons who, while employed in the mine suffer bodily injury or become ill. It also prescribes rules for weekly day of rest and compensatory days of rest for persons working in mines. Further, it limits the hours of work below ground to forty eight hours in any week or for more than eight hours in any day.

The internal auditor has to check on:

The MIS Reports or monthly review meetings and its minutes on Safety, Medical & Health, Environmental(HSES), Fire safety and explosion activity aspects to check the adherence of the Rules framed and major deviations, if any.

Mines Rules, 1955

The health and safety of the workers is governed by the Mines Rules, 1955 created under the jurisdiction of the Mines Act, 1952.

Mines and Minerals (Development and Regulation) Act 1957 [MMDR Act 1957]

The Mines and Minerals (Development and Regulation) Act, 1957 provides for the regulation of mines and the development of minerals under the control of the Union. This Act provides that no person shall undertake any reconnaissance, prospecting or mining operations in any area, except under and in accordance with the terms and conditions of reconnaissance Overview of Policies and Regulations permit or of a prospecting licence or, as the case may be, a mining lease, granted under this Act and the rules made thereunder.

Further, it provides that any State Government may, after prior consultation with the Central Government and in accordance with the Rules under Section18,undertake reconnaissance, prospecting or mining operations with respect to any mineral specified in the First Schedule in any area within that State which is not already held under any reconnaissance permit, prospecting licence or mining lease.

Section 4A of the Act provides that "Where the Central Government, after consultation with the State Government, is of opinion that it is expedient in the interest of Regulation of Mines and Mineral Development, Preservation of natural environment, control of floods, prevention of pollution or to avoid danger to public health or communications or to ensure safety of buildings, monuments or other structures or for conservation of mineral resources or for maintaining safety in the mines or for such other purposes, as the Central Government may deem fit, it may request the State Government to make a premature termination of prospecting licence or mining lease in respect of any mineral other than a minor mineral in any area or part thereof, and, on receipt of such request, the State Government shall make an order making a premature termination of such prospecting licence or mining lease with respect to the area or any part thereof."

Check list

1)Mining Operations needs to be done under valid License under the Act which is to be checked about its validity and ensuring the Compliance of Conditions precedent, if any.
2)Whether the Mining lease so obtained is valid and in existence has to be checked.
3)To check whether the entire mining area is within the prescribed limits under sub section 1 of Section 6 of MMDR Act.
4)Under Section 9 of the Act the Periodical payments on Royalty and Dead rent needs to checked.
5)Statutory records required to be maintained under section 12 of the Act needs to be checked.

Mineral Concession Rules 1960 [MC Rules]

The Mineral Concession Rules, 1960 outline the procedures and conditions for obtaining a Prospecting

Licence or Mining Lease.

1) It should be checked that the Mining Operations being conducted by the Company are obtained in the Prescribed Forms under Mining Concessional Rules.
2) If any Transfer of License OR prospecting license are valid and in the Form of O and P duly obtained from the designated authority needs to be checked.
3) All state Government permissions for Mining lease and Mineral extractions needs to be cross checked and are in line with the Permissions held by the Company.

The Mineral Conservation and Development Rules, 1988 [MCDR Rules]

The Mineral Conservation and Development Rules, 1988 lays down guidelines for ensuring mining on a scientific basis, while at the same time, conserving the environment. The provisions of Mineral Concession Rules and Mineral Conservation and Development Rules are, however, not applicable to coal, atomic minerals and minor minerals. The minor minerals are separately notified and come under the purview of the State Governments. Checks to be applied under Mineral Conservation and Development Rules 1988 are:

1) Whether mining plan Operation is carried out as per Rule 5(2) (b) of the approved mining plan?
2) In case of any modification in Mining plan has occurred, is it with the Rule 10 of the MCDR Rules and within 90 days period is to be checked.
3) Under Rule 15 whether Overburden benches have been kept properly and in advance shall be checked.
4) Opening of a mining formalities and application in Form C as per Rule 22(1) with regional Controller needs to be checked.
5) Abandonment of a Mine, under Rule 23, if any needs to be checked, etc.

The Offshore Areas Mineral (Development and Regulation) Act, 2002

The Offshore Areas Mineral (Development and Regulation) Act, 2002 provides for development and regulation of mineral resources in the territorial waters, continental shelf, exclusive economic zone and other maritime zones of India and provides for matters connected therewith or incidental thereto. The Act shall apply to all minerals in the offshore areas including any minerals prescribed under the Atomic Energy Act, 1962 except mineral oils and hydrocarbons related thereto.

Offshore Areas Mineral Concession Rules, 2006

Offshore Areas Mineral Concession Rules, 2006 issued for grant of permit, licence or lease.

The Mica Mines Labour Welfare Fund Act, 1946

The Mica Mines Labour Welfare Fund Act, 1946 was enacted to provide for constitution of a fund for financing the activities which promote welfare of labour employed in the mica mining industry. The fund is aimed to provide housing, medical care, educational and recreational facilities to workers employed mica mining industry.

Limestone and Dolomite Mines Labour Welfare Fund Act, 1972

The Limestone and Dolomite Mines Labour Welfare Fund Act, 1972 was enacted to provide for the levy and collection of a cess on limestone and dolomite for financing the activities which promote the welfare of persons employed in the limestone and dolomite mines.

Iron Ore Mines, Manganese Ore Mines & Chrome Ore Mines Labour Welfare Fund Act

The Iron Ore Mines, Manganese Ore Mines & Chrome Ore Mines Labour Welfare Fund Act, 1976 - was enacted to provide for financing the activities which promote the welfare of persons employed in the iron ore mines, manganese ore mines and chrome ore mines.

Other applicable legal Requirements:

Industrial Disputes Act, 1947

As the name suggests this Act lays down provisions for making enquiry into and settlement of any dispute in connection with the compliance or not of the terms and conditions of employment.

Employees Provident Fund & Miscellaneous Provisions Act, 1952

This Act provides for the setting up of the provident fund, pension fund and deposit linked insurance fund for the employees of the establishment.

Factories which employ more than 20 workers the PF scheme should be included. Further, contract labour has to be included but casual and trainees are to be excluded. All workers getting salary below Rs. 6500 per month and all those who already a member of PF. It is covered from day one of employment. PF code number has to be obtained.

The Administrative charges are 1.10% for PF and 0.01% for deposit linked insurance scheme to be remitted by the employer.

Employees State Insurance Act, 1954

This Act primarily provides for the benefits to be made available to employees in case of sickness, maternity and employment related injury. All the workers including casual and temporary workers getting salary below Rs 10000 pm are entitled. The Employers contribution 4.75% Employees contribution 1.75% of the wages (all the remunerations including allowances)

Payment of Wages Act, 1936

The Act lays down provisions regarding payment of wages to certain class of employees. The wages should be paid before 7th of every month if the strength of the factory is below 1000 workers. If it exceeds 1000 workers, should be paid before 10th of every month.

Minimum Wages Act, 1948

This Act provides for minimum rate of wages for certain class of employees. The Act covers for all categories of workers. The minimum wages are to be paid as per the existing rules of the State Government which should comply with the state- wise Gazette notification.

Workmen's Compensation Act, 1923

This Act provides for payment of compensation for accidental injury during employment.

Payment of Bonus Act, 1965

The Act provides for payment of production related or profit related bonus to employees in certain

establishments. It covers all the workers except apprentices. The rates specified are as follows:
Minimum bonus is 8.33% on Basic and DA and for such eligibility –workers drawing salary upto Rs.10,000 pm (Basic & DA) worked for minimum 30 days. There is a maximum ceiling for the bonus– Rs. 3500(Basic & DA)

Payment of Gratuity Act, 1972

The Act regulates the payment of gratuity to employees and related matters. All the employees are covered except apprentices on completion of five years continuous service.
Form F to be filed for those who have completed one year of continuous service.

The Fatal Accidents Act, 1855

The Act provides for compensation to the families of employees who have been fatally injured by accidents resulting from actionable wrong doings.

Central Excise Tariff Act, 1985

The Central Excise Tariff Act, 1985 has to be abided and followed.

CENVAT Credit Rules

Where an entity is taking credit in its books for central excise duty, service tax or VAT paid on input material or service or capital goods purchased it has to abide the above mentioned rules.

State Level VAT Act and Central Sales Tax Act

The States have their own 'Value Added Tax' Act and impose various rates of tax on sale or transferred to a place outside the boundary of the state the provisions of the Central Sales Tax Act shall apply.

Companies Act, 2013

Provisions of the Companies Act, 2013 will apply.

Income Tax Act, 1961

The Provisions of the Income Tax Act and Rules apply to any other Industry

Contract Labour Act, 1970

This Act is applicable to all factories where 20 or more contract workers are engaged. It should be registered and license has to be taken by the contractor. The welfare and safety as per the factories act has to be complied. The wages are to be paid in the presence of an authorized representative of the management. If the contractor fails to pay the wages the act states that the principal employer has to pay. It should also be checked that the minimum wages are to be paid. The individual PF and ESI are to be remitted.

Child Labour (Prohibition and Regulation Act, 1985

It is applicable to labourers who did not reach the age of 14 years of age.

Contract Labour (Regulation & Abolition) Act, 1970

The Contract Labour (Regulation & Abolition) Act, 1970 was enacted to regulate employment of contract labour so as to place it at par with labour employed directly, with regard to the working conditions and certain other benefits. Contract labour refers to "the workers engaged by a contractor for the user enterprises". These workers are generally engaged in agricultural operations, plantation, construction industry, ports & docks, oil fields, factories, railways, shipping, airlines, road transport, etc. The Act is implemented both by the Centre and the State Governments. The Central Government has jurisdiction over establishments like railways, banks, mines etc. and the State Governments have jurisdiction over units located in that state.

Technical Peculiarities:

1. Mining feasibility study:

A mining feasibility study is an evaluation of a proposed mining project to determine whether the mineral resource can be mined economically. There are three types of feasibility study used in mining, order of magnitude, preliminary feasibility and detailed feasibility.

Order of magnitude

Order of magnitude feasibility studies are an initial financial appraisal of an indicated mineral resource. It will involve a preliminary mine plan, and are the basis for determining whether to proceed forward with an exploration program, and more detailed engineering work.

Preliminary feasibility

Preliminary feasibility studies or "pre-feasibility studies" are more detailed than order of magnitude studies. A preliminary feasibility study is used in due diligence work, determining whether to proceed with a detailed feasibility study and as a "reality check" to determine areas within the project that requires more attention. Preliminary feasibility studies are done by factoring known unit costs and by estimating gross dimensions or quantities once conceptual or preliminary engineering and mine design has been completed. Preliminary feasibility studies are completed by a small group of multi-disciplined technical individuals.

Detailed feasibility studies

Detailed feasibility studies are the most detailed and will determine definitively whether to proceed with the project. A detailed feasibility study will be the basis for capital appropriation, and will provide the budget figures for the project. Detailed feasibility studies require a significant amount of formal engineering work.

2. Draft Project Report:

Before the activity of mining is undertaken by the company, it is important to prepare the Draft Project Report. To prepare this report, the company needs to have the report of the Geological Society of India for their investigation done with reference to the company's requirement of identifying the ore/metal at different parts of the country. On receipt of the report of GSI, the company is to prepare the Draft Project Report (DPR) which will deal with all the aspects of the activities of the mine the type of mining to be adopted whether open cast or underground depending technical parameters etc. The DPR will indicate the period of mining whether for 15 years or 30 years within which the entire ore/metal reserves will be exhausted. The DPR will also give details of the stripping ratio and OBR ratio which will be worked out depending upon the soil conditions. Those ratios are very important for identification of the ore/metal and the projected expenditure over a period of time. The DPR would also discuss various Heavy Earth Moving Machineries to be deployed for the purpose of extraction of ore.

The company, after conducting the technical study will decide as to where to install the Coal Handling Plant (in case of coal) what would be lead from the earth pit. It should be noted that the lead from the benches to the CHP would be varying from time to time depending the progress of open cast mining.

When the DPR has projected certain ratio for OBR or stripping, in practice, it may vary depending upon the soil conditions which will be known only when the mining operations are undertaken. In the open cast mining, seasonal changes also to be kept in mind and proper care is to be taken for pumping out the water during the rainy season. After proceeding in underground also the threat of water entering into the mine cannot be ruled out and all possible safety measures are required to be taken by the company keeping in view the statutory requirements. It is the duty and responsibility of the internal auditor to ensure whether the company has deviated in respect of any of the safety measures, though they may not reflect financial transactions and cannot be measured in terms of money.

Internal Auditor's observations are vital and the management will be answerable to all concerned on the observations and as such more diligence and care is to be exercised by him in discharge of his duties.

Importance of DPR and its justification

It is a well-established fact that very recently the Government has liberalized the procedure and permits to private sector in to mining and metallurgy. So far all the mining activities are vested with the Government companies of State and Central Governments only. When a company makes a proposal for the start of mine, a draft detailed project report (DPR) is to be prepared and the same needs to be approved by the concerned administrative ministry of that Government in principle. Keeping this background, it is very necessary that all the companies which are under the Governmental control should start their proposals for mining and metallurgy which needs approval from the concerned Administrative Ministry. In that back drop, DPR plays a very important role in that sector. Because of Time and Cost Overrun projects, many of the Schemes/projects will be monitored by the Central Government/Statement and in that connection DPR is the only document, which lays down the proposed set of activities to be translated in to action.

3. Mine decommissioning

Mine decommissioning usually occurs when the economic recovery of minerals has ceased. The overall mine decommissioning process is integrated with the overall mine operation planning process. In other words, the mine should be designed and operated with a continual focus on closure outcomes. Factors contributing to cessation of mining activities include

- depletion of reserves that can be mined,
- changes in market conditions,
- changes in the financial viability of the company; or adverse environmental or political

conditions.

The mine closure phase may include such activities as

- re-contouring pit walls and waste dumps,
- covering of reactive tailing dumps,
- decommissioning roads,
- dismantling buildings,
- re-seeding/planting disturbed areas,
- ongoing monitoring,
- possible treatment for water quality,
- other mine reclamation activity, and
- abandoning the mine.

The overall objective of mine closure is to prevent or minimize adverse long-term environmental, social and economic impacts, and to create a stable landform suitable for some agreed purpose.

4. Abandoned mines

Generally, abandoned mines are sites where advanced exploration, mining or mine production ceased without rehabilitation having been implemented at all or without its completion. Governments control the permitting system and have a duty to keep updated records and ensure that operators do not abandon operations irresponsibly.

- **Loss of mine data** – information that was not well stored. The loss of data may be due to a disaster or unscheduled closure.
- **Local political problems** – in some regions, political problems led to the unscheduled closure of a number of mines.
- **Small scale mining** – the uncontrolled occupation of mine sites by artisanal or illegal miners has occasionally led to a site being abandoned.

Funds are required for the rehabilitation of abandoned mine sites. In some cases, governments are forced to take on the task of rehabilitating abandoned mines when there are no identifiable owners or if the owners have no funds to pay for rehabilitation.

Chapter 14

Planning an Internal Audit and Audit Programme of Mining Industry

Mining and Extraction Industry in India is in both sectors of Public and Private and having a recorded strong phenomenal growth of 8.29% and above from FY 2009-10 onwards which contributes a significant pie in India's GDP growth. However the necessity and effective Internal Audit function to this Industry is not only imperative but also timely operative in its true sense due to unearthing of sequence of scams in both sectors in the Industry. Internal Audit assignment needs advance planning and the auditor shall have the brief knowledge on Process involved in Mining Operations i.e. Mineral Process, Metal extraction and Metal refining etc. and the ingredients or its salient features. Now let us have a brief note of it.

Initial Mining Process

Mines are the natural resources formed by virtue of Geographical changes from the earth transformation age. On identification of mine deposits by geology study and reports there on the approval and its subsequent methodology, procedure and process of Mining begins.

The raw shape of any hard mine deposit/substance is called as Ore. As these Ore are to be extracted and processed the same for put to use, which is nothing but called "Mining Process"?

The initial Mining process and Ore extraction depends upon many factors like

- Nature, location and depth of deposit formation to the ground level.
- Geographical hurdles involved in its extraction.
- Quality of main ore with other substances, if any etc.

Here the Internal Auditor has to study and assess the pattern and policy adopted by the Company on 'Initial Mining Process' as no virtual mine/deposit is available on earth in its 'pure/put to use form', but has to be extracted which involved with associated costs thereon.

Here the type of Mining Pattern or methodology of Ore extraction like Open Cast Mining OR Underground mining depends up on the Technical Report/ feasibility study undertaken by the Company. Internal Auditor has to assess and guide the Company on Formulating the policy matters like segregation of Costs involved in mine extraction per unit of measurement.

Unless the Policy is clear and in line with Accounting Standards, the extraction cost per unit may give a distorted picture. To be more clear it is to say that any expenditure involved in the Mining Operation may be either direct expenditure which is in straight relation to the Operations of Ore Production and its associated cost like transportation, OR indirect cost like removal of Overburden, Ramp preparation etc. to nail the virtual Ore. These indirect operational Costs are huge in count and have no nexus with production volumes of the Ore. But are necessary to create road map to the objected Production operations. Accounting Standards allow these costs are to be placed under capitalization.

However the Internal auditor has to check the Revenue expenditure so accounted and treated in books of accounts give the true value per unit of the extracted Mine OR needs any additional costs from capitalized costs, as the Price determination in most of the Government owned Companies are with the Management and based on Accounting Data.

One more consideration the Internal auditor has to check is that there are associated Costs involved in mining operations are Mine-Closure costs, its associated Costs, environmental development costs etc. which are statutory obliged and also periodical costs in nature during the Currency of the Mining Operations. This type of expenditure needs Company policy and Provision making in books of accounts, which is to be checked by the auditor.

Mineral deposits are called ore. Most of the ore contains unnecessary material that is removed in the mineral process. Material extracted from the earth is thoroughly processed through open cast/Surface mining OR underground mining as explained in the previous chapter. Mining products under go a long series of transformation before they are being offered for daily use by ultimate consumer.

The series of transformation starts with the rock in the earth's crust. Various minerals are formed in the earth's crust as the result of different deposits and compound combinations.
The type of mining process used depends on the type of mineral being processed. Minerals are usually categorized as rock materials, industrial minerals (e.g. clay), base metals (e.g. copper) and precious metals (e.g. gold) besides liquid metals. Other materials used by industry are coal, potash, iron ore etc.

Normal Process in Mining

Normal Mining process is nothing but the extraction of earthen product which is quite hard and unshaped needs to be regulated for product units OR down sized to the requirement with the help of blasting measures and mechanical devices like Crushers, Grinders like Operation centers with the aid of mechanical devices like, Dumpers, dozers, and shovels excavators through chain or Other Conveyor systems.

The very operation process starts with the marked blasting area by taking all possible precautions as well as following statutory requirements on usage of blasting materials/magazine in the mine area to be devastated.

1. Cushing activity

In crushing activity the large size rocks called as boulders are transported for crushing operation i.e. to cut down to size. Crushers are of different capacity as well sizes and its types are Stationery crushers and mobile (movable) crushers. Based on the activity it performs they are classified in to Jaw Crushers, cone crushers, gyratory crushers etc.

In the crushing activity various screens are used to classify the sizes of crushed materials, which have a fixed screen life.

2. Grinding

After crushing operation the second stage of activity is grinding. The fragmented boulders are put to grinders to minimize its size through ball or Rod grinders.

As these mechanical devices and other heavy earth moving machinery (HEMM) classified and fixed assets have standard life as per manufactures specifications and catalogue. An auditor has to apply checks and balances on the depreciation and condemn of assets in particular.

Rock material is mined using explosives and quarrying operations. Large boulders are transported to big crushers that crush the rock material into boulders and other small sizes.

Various sizes of crushers, both stationary and mobile, are used at mines. Among the types used are primary gyratory crushers, impact crushers, cone crushers and jaw crushers. The material to be crushed is fed into the crusher either through a conveyor, or excavator or a wheel loader Proclainer.

3. Grinding mills

After crushing, the rock material is ground in grinding mills. There are a variety of different grinding mills, including rod and ball mills, semi-autogenous (SAG) mills and autogenous mills. In the grinding mills, the impact of the minerals grinding against each other and against the steel balls in the mill breaks down the size of the minerals even further.

The mining process also includes a vibrating screen that sorts the crushed material into desired grain sizes.

Rock material is extremely hard and thus it wears down the crushers and grinders. Therefore the wear parts, like the various blades and rotors and the liners of grinding mills, must be replaced regularly.

Mineral Process

As explained above in the mining process a definite area is marked and put to explosion and there by the rocks/boulders separated are down sized in the activities of Crushers and Grinders. In the stage of mineral processing the said down sized minerals normally have other unnecessary substances are also available which needs identification/separation of the desired mining material. This Process of required mining material separation is done by various applications of physical, chemical and mechanical processes viz. Gravitational force, leaching, emission and magnetic separation methods. By the above said application, the desired mining material is obtained with the help of mechanical devices like filter, chambers, sedimentation, coil-basins etc.

In the mineral process valuable minerals are concentrated by removing unnecessary substances from the excavated rock material. The first phase of the process involves reducing the size of the mineral. This is done in crushers and grinding mills where the ore is broken down into smaller pieces.

When the fragments of ore are small enough, the pieces containing the most valuable minerals are separated from those containing mostly unwanted minerals. The separation process involves leaching, emission, gravity methods and magnetic separation. Emission chambers and pipes, coils and magnetic separation equipment are used in the separation process. Water must also be extracted from the concentrated product. Coils, filters, thickeners, sedimentation basins and dryers are used to do the said activity.

Metal-Extraction

As the mining material so processed needs to be further developed to reach the final extraction stage. This is being done by various metallurgical extraction methods depending up on the type of mineral so unearthed like Iron Ore, Lime stone, Gold, Copper, bauxite etc.

These extraction process is being done by methods like Electrolysis (by using electric voltage current, oxidation) Pyro metallurgy (which uses by temperature applications of separation), Hydro metallurgy (by water/liquid solution application of separation) etc., depending up on the material (mine) to be extracted.

In the next phase, metal is extracted from the mineral. Extraction methods vary depending on the product, but the main methods are pyro metallurgy (a metal production method employing high temperatures), hydrometallurgy (producing metal by leaching the raw material and flocculating the pure metal from the solution) and electrometallurgy (a metal production method applying electricity). Electrolysis, a forced oxidation-reduction reaction achieved using electric current, is an integral part of electrometallurgy. Electrolysis can be used to produce very pure elements.

Metal-Refining

Mining and Metallurgy industry involves a chain of operations like unearthening of metal along with earth or other related mass, its separation or grading, metal extraction and metal/mineral refining. As all these mass operations involves a process and needs mechanical, electrical, chemical processes(if necessary)etc. needs the help of auto mechanical equipment like Dumpers, Dozers, Cranes, excavators, Proclainers, tippers etc.

So while planning an audit programme it is to be noted that the operational budget and maintenance budget if any are to be verified and the quantum of ore/metal extracted with the norms set by the Company. It shall be the Priority of audit on usage of various resources like deployment of labour, mechanical equipment, Process machines and other valuable services hiring like field experts costs needs to be correlated with the Production and stocks. Idle machinery, excess deployment of manpower, input-output ratio of material need to be checked with various audit tools.

A check list needs to be prepared for various operations in the Company and shall be verified with the internal MIS reports for ensuring the systems in place are adequate and to assess the need for internal controls improvement.

Chapter 15
Special transactions peculiar to the industry

Environmental provisions:

Under the Mining industry special attention is to be paid for environmental provisions. The internal auditor needs to ensure that:

1) The various Periodical Reports conducted and submitted by the Company on air test and the air pollution against the permissible limits in the control- areas to various authorities.
2) Inspect pollution control equipment and its workings and Deviation Reports thereon submitted to respective PCB and Complaints or show cause notices received, if any and action taken thereon by the Company.
3) Water testing periodical Reports submitted by the Company to the respective PCB authorities needs to be observed by auditor to check the action taken report required if any, by the Company.
4) Noise pollution levels and accepted norms as per Noise pollution (Control and Regulation) Rules 2002 shall be checked by auditor with the Reports submitted and the Social checks/campaigns conducted by the Company in the vicinity.

II Mine closure measures

Mine Closure plan have two Components:

a) Progressive or Concurrent Mine Closure plan and
b) Final Mine closure plan.

The Mine closure plan includes the following checks and balances to be observed by an auditor like:

a) Reasons for closure
b) Statutory Obligations
c) Closure plan Preparation,
d) Mine Description,
e) Reserves
f) Geology,
g) Mining Method and
h) Closure Plan etc.

There are various formalities and applications/procedure for closure of Mine closure Plans. Internal Auditor has to follow the checks and balances as per the specific Company norms applicable and obtained. Guideline regarding Mine closure plan is given in annexure 1

Royalty:

A lessee is a person who is granted mineral concessions. The lessee is required to pay a certain amount in respect of the mineral extracted in proportion to the quantity extracted. Such payment is called royalty. Royalty is calculated on the quantity of minerals extracted or removed. The owner of the land is called lessor. The lessor has a right to receive a royalty based on the production of minerals. The lessor i.e. State Governments are collected royalty irrespective of whether mineral is marketed or not marketed. When a mineral has been mined it acquires a definite market value depending on grade, market conditions and so on.

The royalties in respect of mining leases is specified in Section 9 of the MMDR Act, 1957. Royalty is a variable return and it varies with the quantity of minerals extracted or removed. Royalty in strict sense and in common parlance may not be a tax. In case of ad valorem rates, the royalty is payable as per the mandate of Rule 64 D of MCR, 1960 and guidelines prescribed thereunder.

In India, the royalty is calculated based on tonnage and ad valorem royalty rates. Nine minerals are covered under tonnage basis and remaining minerals are on ad valorem basis. The rates of royalty for coal and lignite has been continued to be levied as per the Official Gazette Notification Number GSR 522(E) dated 1st August, 2007.The rates of royalty for uranium has been continued to be levied as per the Official Gazette notification number GSR 96(E) dated 13th February, 2009.

The manner of payment of royalty on ad valorem basis have been provided in Rule 64D of the Mineral Concession Rules, 1960. It has substituted the earlier guidelines for computing royalty on minerals on ad valorem basis .The manner of payment of royalty on ad valorem basis as notified vide Ministry of Mines, Official Gazette Notification No. GSR 883(E) dt. 10.12.2009 are given at Annexure II:

Dead Rent

Dead Rent is a deterrent against the tendency of leaseholders in cornering the mining lease and keeping the mineral resources idle. In the mining sector, there is a possibility that a lessee may deliberately prevent his competitor from accessing the mineral bearing land, thereby preventing production of minerals leading to artificial scarcity for the mineral, and also depriving the State Governments from the royalty revenue which may accrue normally. Therefore, ideally, the 'dead rent' should have some relationship with economic values of mineral resources which are kept idle by the lessees and not merely with surface area of the idle leases.

At present, the rate of dead rent varies according to grouping of minerals viz., precious metals and stones (like gold, silver, diamond, ruby, sapphire and emerald); high value minerals (semi-precious stones - agate, gem garnet and corundum); copper, zinc, asbestos (chrysotile variety) and mica; medium value minerals (chromite, manganese ore, kyanite, sillimanite, vermiculite, magnesite, wollastonite, perlite, diaspore, apatite, rock phosphate, fluorite (fluorspar) and barytes; and low value minerals (other than precious metals and stones, high value minerals and medium value minerals).

Royalty for Offshore area Minerals

The Offshore Area Mineral (Development and Regulation) Act, 2002 provides for development and regulation of mineral resources in the territorial waters, continental shelf, exclusive economic zone and other maritime zone of India and to provide for matters connected therewith or incidental thereto was notified on 31st January, 2003. Subsequently vide Gazette of India, Ministry of Mines Notification GSR

691(E) dated 3rd November, 2006 in exercise of the powers conferred by Section 35 of the said Act read with Section 22 of the General Clause Act, 1897 made the Offshore Area Mineral Concession Rules, 2006.

As per Section 16 of the aforesaid Act a lessee shall pay royalty to the Central Government in respect of any mineral removed or consumed by him from the area covered under the production lease, at the rate specified in the First Schedule in respect of that mineral. The Central Government shall not enhance the rate of royalty in respect of any mineral more than once during any period of three years. As per Section 17 of the aforesaid Act, a lessee shall pay to Central Government, every year fixed rent in respect of the area covered under the production lease, at the rate for the time being specified in Second Schedule of the Act. Further, lessee shall be liable to pay either royalty or the fixed rent, whichever is greater. Like royalty of onshore minerals, the Central Government shall not enhance the rate of fixed rent of offshore minerals more than once during any period of three year.

Rates of Royalty and Fixed Rent

As per Section 16(1) of the Offshore Area Mineral (Development & Regulation) Act, 2002, the rates of royalty had been notified in the First Schedule.

As per Section 17(1) of the Offshore Area Mineral (Development & Regulation) Act, 2002, the rates of the fixed rent had been notified in the Second Schedule.

The other important transactions involved in the Industry where Internal Auditor has to focus are:

- Transportation Contracts
- Man Power deployment
- Production and Productivity Records
- Machinery Performance/ Utilization Vs Out-Put
- Civil Contract Works
- Explosives(magazine) and
- Power

Auditor has to exercise reasonable care and more common senses in auditing the above inherent transactions of the Industry.

A suggestive check list is given area wise, however it shall be kept in mind that the said Check list is indicative in nature but not exhaustive hence due care shall be exercised while performing the tasks.

Transportation activity is the back bone of the Industry and encompasses all the areas of both Input and Output, like OB removal, Coal, Sand, Inventory transportation etc.,

Transport Contracts: Needless to say this is the vital area which needs an embedded check to ensure efficient Conducting of Internal Audit.

A few suggestive checks are:

1. Coal Transport

(a) Whether prescribed tender procedures have been followed; inviting limited/open tender as per the delegation of powers, time given to participate in the tender, formation of tender committee, opening of sealed tender by the tender committee, Earnest Money, Deposit, negotiation with the tenderers, etc. with reference to any manual.

(b) Whether the route of transportation is certified by industrial Engineering as shortest possible route of transportation.

(c) Report whether the work order executed as per the terms of contract and deviation of time/quantity has been approved by the competent authority and payment released as per terms of contract.

(d) Whether the contractor achieves monthly target quantity for transport and penalty for short fall, if any, is recovered from the contractor as per the work order.

(e) Whether approval from competent authority exists for waiver of penalty, if any.

(f) Whether 100% weighment of trucks/tippers/dumpers is done. If not, what is the % of the number of trucks weighed. Whether surprise checks are conducted for weighment. Whether the work order provided for random weighment. Whether approval of competent authority has been obtained for random weighment.

(g) Basis of arriving at the figure of coal transported. Its cross check by reconciliation method; Dispatches + Closing Stock – Opening Stock. (keeping re handled quantity, if any in view)

(h) % of quantity re-handled and approval of competent authority for it.

(i) Whether transport of coal from (i) quarry to stock and (ii) stock to CHP (re-handling) is taking place simultaneously; whether coal could have been transported directly from quarry to CHP thus avoiding rehandling.

(j) Maintenance of records – Trip Register, Gate Pass, Bill, MB, Bill Passing Register, etc.

(k) Whether there is any difference in the quantity of coal received by CHP (from various sources) and discharged by CHP.

(l) Whether payment is made as per the terms and conditions of the work order and based on the certificate of the concerned authority regarding satisfactory performance. Whether recoveries such as Security Deposit, Income Tax, etc. have been made correctly and are reflecting in the accounts.

(m) In case of decrease in the price of diesel, whether the rate of transport has been reduced accordingly.

(n) Reconciliation of coal transported from quarry and coal received for dispatch – whether all the trucks which left the quarry with coal, reached the unloading point.

(o) In case, coal transportation is done by both departmental means and by the contractors from the same mines whether separate identification of the quantity transported by both the means has been made and found correct.

(p) If any demurrages paid to the railways due to fault of coal transporter, whether the same has been recovered from the contractor and the frequency of occurrence has to be reported.

(q) Whether Uniform Procedure has been followed while evaluating offers of all parties.

(r) Whether time frame has been fixed for commercial / Technical scrutiny of offers and the minimum and maximum time has been fixed, for clarification / other documents called from the parties, has been followed uniformly.

(s) Whether Uniform practice has been followed for acceptance / rejection of offers including the time period for such decision.

(t) The Internal Auditor should also give his observations whether quarterly stock measurement has been done by the Management as per Yellow Book.

(u) Internal Auditor has to check and ensure on periodical calibration of Weigh bridge and weighing machines in operation and its periodical certification.

2. Sand Transport

(a) Whether provisions of any Manual are being followed.

(b) Whether tender procedures have been followed; inviting limited /open tender as per the delegation of powers, time given to participate in the tender, formation of tender committee, opening of sealed tender by the tender committee, Earnest Money Deposit, negotiation with the tenderers, etc. Whether the rates at which works have been awarded appear to be competitive and reasonable compared to the prevailing trend of rates.

(c) Whether any attempt has been made to split the tenders to keep the value of contract within the delegated powers of the approving authority. Whether approval of competent authority has been taken for transport of sand from longer lead-ghats.

(d) Whether the total quantity transported is within the awarded quantity. Whether prior approval of competent authority has been obtained for any excess quantity.

(e) Prior approval of competent authority for excess quantity in the value of work.

(f) Reconciliation statement:- (Opening stock of sand+ Sand transported from River / Stock to Bunker) – (Sand stowed + Sand consumed for other purposes) = Closing stock of sand.

(g) Comparison of book stock with physical stock of sand and difference, if any.

(h) Whether any back lagging of sand stowing exists and details thereof to be furnished.

(i) Whether uniform procedure has been followed while evaluating offers of all parties.

(j) Whether time frame has been fixed for commercial / Technical scrutiny of offers and the minimum and maximum time has been fixed, for clarification / other documents called from the parties, has been followed uniformly.

(k) Whether Uniform practice has been followed for acceptance / rejection of offers including the time period for such decision.

(l) In case of any deletion or insertion of terms and conditions in the NIT, whether proper justification has been recorded and competent approval has been obtained and it is ensured that the same does not restrict competition and promote cartelization.

(m) Whether eligibility criteria in the NIT are standardized and, reasonably incorporated to promote maximum participation for competitive rate and do not restrict competition.

(n) Sand stowing records.
(o) Whether claim for sand stowing subsidy has been made regularly.
(p) Sand stowing ratio and comparison with norms.
(q) Accounting of stock of sand.
(r) Whether State taxed Royalty is being paid from time to time and supported by
(s) Royalty passes.

3. Overburden Removal (OB Removal) Contracts Including Its Transportation & Coal Extraction: Contracts for OB Removal

	No. of contracts	Volume
(A) Total No. of contracts during period of audit		
(a) Open tender		
(b) Limited tender		
(c) Negotiated tender		

(B) Whether estimate is supported with shortest lead certificate, non-availability of departmental capacity.

(C) Whether tendering action for new contract has been initiated at least 4 to 5 months in advance from the completion date of existing contract to avoid any time/quantity extension.

(D) Whether there is any splitting of contract in terms of quantity/time to accommodate the tender value within specific delegation of power.

(E) Whether Personnel Dept. certified regarding fulfilling requirement of labour laws specifically for correct wages and Provident Fund.

(F) No. of contracts extended for time / quantity and whether such extensions is supported with proper justifications.

(G) Whether payment of escalation/de-escalation has been properly calculated.

(H) Checking of initial and final measurement document of contractual OB removal.

(I) System of reconciliation of trips with reported production.

(J) Whether the following records are maintained :

i) Contract recording report.
ii) Contract physical progress summary.
iii) Contract physical progress statement.
iv) Contract financial progress statement.
v) Contract budget monitoring statement.
vi) Contract physical progress status report for contract running behind schedule.
vii) Register of cards for contractors' performance appraisal.
viii) Contractor's folio for performance appraisal.
ix) Contractor's performance appraisal Card

(K) Reconciliation with survey report and OBR reported.

(L) Whether provisions of the Contract Management Manual are being followed.

(M) Whether Uniform Procedure has been followed while evaluating offers of all parties.

(N) Whether time frame has been fixed for commercial / Technical scrutiny of offers and the minimum and maximum time has been fixed, for clarification / other documents called from the parties, has been followed uniformly.

(O) Whether Uniform practice has been followed for acceptance / rejection of offers Including the time period for such decision.

(P) Checking of opening advance stripping of the period with that of last year's Closing advance stripping.

(Q) OBR removed during the year with bill paid and reconciliation with physical measurement.

(R) Checking the closing advance stripping striping with surveyor's report.

(S) Verification of OBR measurement and accounting.

(T) To check whether the OBR ratio is as per the ratio given in DPR and if not whether approval for the deviation has been obtained.

4. Manpower:

(a) Sanctioned manpower vs. Actual manpower

(b) Diversion of piece-rated manpower to time-rated jobs – Number of cases and whether approval of competent authority exists for such diversion, specifically no. of loaders deployed on surface duty with reasons thereof for such deployment to be furnished.

(c) Shortage of manpower in one category and surplus in other

(d) Absenteeism :

1. Percentage of authorized and unauthorized absenteeism of total manpower
2. Percentage of authorized and unauthorized absenteeism in Time rated workers
3. Percentage of authorized and unauthorized absenteeism in Piece rated workers

5. Civil Contract Works (Capital & Revenue)

1. Whether procedures have been followed as per Civil Engineering manual with reference to invitation of limited / open tender as per the delegation of powers, publication of NITs as per NIT publication policy of the company, time given to participate in the tender, formation of tender committee, opening of sealed tender by the tender committee, EMD, negotiation with the tenderers, etc.

2. Whether the rates at which works have been awarded appear to be competitive and reasonable compared to the prevailing trend of rates.

3. Whether any attempt has been made to split the tenders to keep the value of the contract within the delegated powers of the approving authority.

4. Whether any tender has been called without updated estimate to avoid paper / advertised tender or keep the value within DOP for short tender notice.

5. Whether the works awarded have been completed within the scheduled time.
6. In case of major works, whether there is any failure on the part of the management due to which work could not be completed in time resulting in escalation in the value of work originally awarded.
7. Whether for civil works which were completed, final bills have been prepared in time and completion of work is accounted for or not. List of cases where final bill is pending for completed work and list of work –in –progress with age to be furnished. For old capital WIP reasons for keeping as WIP without capitalization / charged off to be furnished.
8. Whether any abnormal variations in quantities or additions in items have been observed in Deviation Estimate / Revised Estimate; whether the reasons given for such variations appear justified and whether approval of competent authority has been obtained.
9. Whether any advances has been given to the contractors and outstanding for a considerably long time; whether such advance payments made has been properly recorded on the face of the bill copy and in the Bill Passing Register.
10. Whether payment has been made as per the terms and conditions of the work order and on the basis of satisfactory performance as certified by the concerned authority; whether recoveries towards security deposit, secured advance, income tax, etc. have been made correctly.
11. Maintenance of records such as Tender Register, TCR files, Work order and Agreement, Measurement Books, Bills, Bill Passing Register, EMD refund, etc.
12. Whether Site Order Book and Hindrance register are properly maintained. If not what are the lapses.
13. Total No. of contracts awarded during the period of audit

	No. of contracts	Value
1) Short notice tender		
2) Limited Enquiry / tender		
3) Paper tender		

14. Whether provisions of the Civil Engineering Manual / Contract Management Manual are being followed.
15. Whether Uniform Procedure has been followed while evaluating offers of all parties.
16. Whether time frame has been fixed for commercial / Technical scrutiny of offers and the minimum and maximum time has been fixed, for clarification / other documents called from the parties, has been followed uniformly.
17. Whether Uniform practice has been followed for acceptance / rejection of offers including the time period for such decision.
18. Auditor is to confirm whether material labor escalation/de-escalation has been correctly calculated/paid as per terms of contract.

6. Explosives Maintenance

(a) Maintenance of records of explosive.

(b) In case of Site mixed slurry (SMS) explosives, whether sufficient records are maintained under the Explosives Act to show the correct quantity supplied, Manufacturer wise Powder factor for Coal and OB* separately (Related statements to be signed by the concerned engineer/manager)* For Powder factor calculation, OB should exclude loose un-blasted OB and quantity of OB re-handled

(c) Comparison of Powder factor and Detonator factor with norms and previous year's figures.

Variance analysis of cost per cu.m./Tonne, in comparison with Budget showing details of **volume variance and price variance**

7. Power

a. Consumption of power per unit of production and comparison with previous year's figure - comments.

b. Details of penalty imposed due to delay in payment

c. Specific power consumption and steps taken to improve it.

d. Whether concessional tariff for domestic consumption has been availed fully, if not, reason therefore especially whether separate Meters installed for industrial load and domestic consumption are to be reported.

e. Variance analysis of power cost per cum./tonne with reference to budget showing details of volume variance and price variance and critical comments.

f. Comment on Energy Audit and its compliance.

g. Achievement of Power Factor and Load Factor vis-a vis rebate obtained / penalty paid- comments.

h. Actual Demand vis-à-vis Contract Demand of Power and penalty paid, if any - comments.

i. Report of consumption of power per unit of production and deviations if any from the previous year based on the statement submitted duly signed by the Project Officer/Manager of the Mine.

The Other Functional Departments like:

- Production
- Mechanical & Maintenance
- Purchases
- Finance
- Quality Control and Grade Declaration
- Sales & Marketing
- Stores
- Human Resource Departments and
- System Audit

may be audited with the guidance of the below mentioned checks and balances, however it may be noted that the given is not an exhaustive and Internal Auditor has to exercise the required skills with the help of Internal Reporting system and MIS being in use in the Company. Also it is suggested that the check list may be tabulated for comparable periodical results and deriving at effective Reports for Organizational improvement.

Function wise Check List

Production Records of Opencast Mine

(Related statements to be signed by the concerned shift in-charge)

- Trip-man Register for departmental production & contractual production.
- No. of trips made by each Dumper per shift.
- Lead as approved by competent authority.
- Possible number of trips per shift for the given lead as per IED (Industrial Engg. Deptt.)
- If the actual average number of trips is less, reason therefore.
- Average load per trip and its basis.
- Production figure arrived and production reported
- Monthly measurement records of coal and OB
- Arriving at the production figure from opening stock, dispatches and closing stock
- Whether proper records of rejects of coal produced by Surface Miner is maintained.

Production Records Of Underground Mine

- Number of tubs as per Pit-Munshi report & Pay sheet.
- Production records by SDL/LHD machines, norms for availability, utilization, actual achievement, reasons for any decrease in comparison with last year's and norms.
- Production records of Mass Production Technology i.e. Long Wall, High Wall, Continuous Minor.

Productivity –Comparison

- Overall OMS and comparison with previous year's figure and current year's target.
- Departmental OMS and comparison with previous year's figure.
- Rest day OMS.
- Loader's OMS (Underground) and comparison with previous year's figure and current year's target.
- Report on production and productivity of each mine based on the statement duly signed submitted by the Project Officer/Manager of the Mines/Unit.

Machines (HEMM, CHP, SDL, CM, Long Wall)

Performance: (Related statements to be signed by the concerned engineer/manager)

Name of the Machine	% of working hours over total Shift hours Actual/ Norms	% of Break down hours over total Shift hours Actual/ Norms	% of Maintenance hours over total Shift hours Actual/Norms	% of Idle hours over total Shift hours Actual/Norms	Total Shift hours

(a) Performance of equipment, surveyed-off' but not 'Grounded' for want of replacement, to be indicated separately.

(b) Report in respect of HEMM under breakdown for more than 3 months and reasons thereof and the utilization of any HEMM below 30% of the norms the reasons for such low utilization indicating "breakdown' & 'idleness'.

(c) Number of HEMM and comparison with Project Report/Scheme provisions.

(i) Age-wise profile of the Machines in terms of number of years and its working hours.

(ii) If the Machines exhausted its life as per norms whether it is surveyed Off (Grounded off) or provisionally surveyed off.

(iii) Details of year of survey-off date of receipt of its replacement (if any new HEMM deployed as replacement during the year) and Grounded off records.

(iv) If working hours is low for the machines such HEMM completed its life in terms of number of years but not in number of hours, in such cases reasons for the same need to be furnished.

(v) If the number of HEMM in comparison with the provision of project report/schemes varies the details of diversion from / to the other projects and approval of competent authority if any for the above diversion needs to be verified.

(d) Maintenance of Logbooks

i. Entry of POL

ii. Filling up all columns

iii. Whether the meters of the machine are in working condition.
   (a) Entry of fitment of major spares
   (b) Whether all HEMM are properly maintained as per Maintenance schedule

iv. Working hours and Breakdown hours as per Logbooks and as per monthly Reports. Specific cases of breakdown of HEMM, if such break down is more than three months period.

v. Signature of Engineer-in-charge

vi. Any major expenditure incurred on surveyed off old machines

vii. Records for generation of burnt oil and the action taken for its disposal.

(e) Report of performance of major machine (HEMM, CHP, SDL, LSD and other major P&M etc.) with reference to availability, utilization, idle hours, POL consumption vis-à-vis norms based on the statement submitted duly signed by the Excavation/E&M Engineers of the Project/Mine.

Purchases

1. Whether provisions of Purchase Manual/Policies are being followed.
2. Whether tender procedures have been followed: inviting limited/open tender as per the delegation of powers, time given to participate in the tender, formation of tender committee, opening of

sealed tender by the tender committee etc.

3. Whether tendering is in single bid or double bid system; beyond what financial limit double bid system is followed.
4. Whether any proven sources have been ignored for participation in tender for no valid reason.
5. Whether the policy of the Company to purchase from its ancillary units is followed.
6. Whether the Repeat Orders placed are based on orders placed earlier with proper tendering; whether other conditions governing the placement of Repeat Orders are followed.
7. Whether any attempt has been made to split the tenders to keep the value of the contract within the delegated powers of the approving authority.
8. In case of cancellation of tenders, whether approval of competent authority has been obtained stating reasons for cancellation.
9. Whether the same items have been re-tendered; if so, whether the rates at which order has been placed are higher than the rates received for the tender cancelled.
10. Whether non-availability certificate and consumption pattern of last 3 years has been obtained from Stores before raising indent.
11. Whether indent of same items from different Units/ Areas are clubbed at the office of Purchase Department before tendering.
12. Report on delay in placement of supply orders (from the date of approval of indent).
13. Whether materials have been supplied within the stipulated time; if not, whether liquidated damages have been imposed
14. Report on inordinate delay in time taken to inspect the store materials (after the supply), to prepare Store receipt, to send the bill to Accounts department for payment, to pass the bill for payment and make payment.
15. Whether the payments made are as per the terms and conditions of the order, especially taxes and duties; whether tax concessions are availed
16. In case of delay in supply, whether the Purchase department takes follow up action. Some instances of abnormal delay in supply to be given.
17. Report on maintenance of records such as Tender Register, TCR files, Supply orders, Bill Passing Register, etc.
18. Whether purchases have been made in small quantities at higher rates where bulk purchases could have been made at cheaper rates.
19. In case of local purchase, whether the materials purchased have been consumed immediately.
20. Whether local purchases made are within the powers delegated to the approving authority.
21. Whether any local purchases have been made when the materials were in stock or waiting for inspection.
22. Whether advance payments made to suppliers are outstanding for a long time; list of such advances (separately for P&M and Spares) with age and reason for non-adjustment.
23. Whether the tender's notices are being hoisted on website as per guidelines. Whether the NIT are as per the provision of Purchase Manual/guidelines.
24. Total no. of supply orders placed during the period of audit

    No. of contract / orders   Value

i) Open tender

ii) Limited tender

iii) Negotiated contract

iv) Repeat order.

25. Whether E-procurement has been introduced? If yes, its percentage in comparison to total volume of procurement. And, price advantage if any, observed in E-procurement vis-à-vis earlier conventional tendering process.
26. Whether company policy of Purchase from OEM, OPM, OES are followed for purchase of spares.
27. Whether uniform procedure of the company has been followed while evaluating offers of all parties.
28. Whether time frame has been fixed for commercial / Technical scrutiny of offers and the minimum and maximum time has been fixed, for clarification / other documents called from the parties, has been followed consistently.
29. Whether trial tenders are being floated periodically for imported items for development of indigenous source.
30. Whether module orders are being placed for rehabilitation / major overhauling of equipment/HEMM as per policy and the same are utilized for rehabilitation/ major overhauling of equipment/HEMM and not consumed otherwise. Rehabilitation/major overhauling of equipment has to be closely monitored and reported by auditor.
31. In case of Purchase Department of Headquarters, whether quoted rates are being compared with last purchase price of the Company In case of Units purchase, the same has to be compared with other units and Headquarters.
32. Whether procurement of centralized item in field/units is done with proper justification and the approval of competent authority?
33. In case of any deletion or insertion of terms and conditions in the standard NIT, whether proper justification has been recorded and competent approval has been obtained and it is ensured that the same does not restrict competition and promote cartel.

Finance:

1. Whether budgetary control is exercised for indenting and release of funds, statement of funds received vis-à-vis budget provisions for major heads.
2. Whether the indents are supported by annexure giving details of the pending bills kept ready for payment.
3. Whether the funds have been spent for the purpose for which they were indented. {instances where (a) bills indented for but not paid and (b) bills paid but not indented for may be given}
4. Whether Daily balance statements is sent to HO. Whether the funds are spent immediately on receipt.
5. Whether the bank balance mentioned in the Indent tallies with the Bank book.
6. Whether any cheques have been prepared (and later cancelled) to show the bank balances reduced in the books.

7. Any overdraft in the bank books.
8. Whether stale cheques, if any, are reversed in the bank book regularly,
9. Whether payments to contractors and suppliers are generally made in serial order.
10. Signature of authorized representative in Bank Book and Indents
11. Payment of statutory dues such as Income tax, Royalty, ED, Taxes, etc. and submission of the return to the appropriate authority.
12. Whether surprise physical verification of cash is carried out.
13. Review of General Ledger together with Subsidiary Ledger maintained and to report any abnormal balances noticed.
14. To check whether bills are PASSED as per Supply Work Order / Agreement / Manual.
15. In case of cheque payments, whether cheques are sent by registered post, if not whether proper acknowledgments have been obtained.
16. Whether monthly reconciliation of fund remittances from HQ to Units and similarly from Units Areas to Sub Units is done.
17. Whether Bank reconciliation is done regularly.
18. Whether e-payment system is followed as per company policy and Guideline issued? If yes, the % of total payment made through E-payment system.
19. Vouching of cash/bank book with supporting documents regularly. Backlog if any, observed towards entry of vouchers in computer system should be reported immediately to CGM/GM of the area/unit.
20. Comment on payment of Service tax as per Service tax Act.

Quality Control and Grade Declaration

1. Check the quality of the coal with reference to the projected grade in DPR
2. Check the UHV with reference to the expected DPR grade
3. To check whether there is any delay in applying for the grade declaration of the extract of the mine in respect of coal
4. To conduct sample testing and summarize the results for forming an opinion for declaration of the grade
5. To analyze the reports of quality control obtained from the power houses in respect of the deviations/slippage of grade and quality when the ultimate user complains and demands for credit note.
6. To verify the checks and measures adopted for the maintenance of quality of the product and ensuring avoidance of contamination.
7. To check the customer complaints with reference of quantity and quality and check up the action by the management with the Railways for quantity and efforts put in for effective quality maintenance.

8. In respective of metals to check the process for purification and whether stipulated procedures have been followed or not.

Sales & Marketing

1) Comments on the performance of the department in reference to its Annual Action Plan (AAP).

2) Whether electronic weighbridges are in operation and weighment made on it; if not, reasons thereof.

3) Report on loss on account of grade slippage, deduction due to non-computerized weighment, quantity deduction if any, over loading / under loading and Demurrage paid to Railways.

   (a) For demurrage charges incurred (i) whether indent for wagon placed with Railways are more than the capacity of the siding / Mine (ii) Whether there is untimely supply of wagons where manual loading are done (iii) any other reasons for such demurrage (iv) Whether any protest lodged for unreasonable claim with Railways.

   (b) Whether Demurrage charged owing to failure of Contractor, where wagon loading is done contractually. If so, whether such demurrage recovered from contractor's bill?

4) Report on Maintenance of records for road sales – Delivery Orders wise, Party wise ledger, weighment register, Gate Pass, etc.

5) Layout of various locations in road sales – Check Post, Weighbridge, Stockyard, etc. – Comments on the possibility of theft of coal.

6) Performance of weighbridge - % of coal weighed.

7) Delay in raising invoices on credit customers – time taken by various departments for their role – date of loading, date of receipt of RR, date of billing, date of dispatching the bill.

8) Status of weighment rebate bills.

9) Value of concessional sales tax Form C, etc., pending and its age, party-wise with reason of delay.

Monthly reconciliation between billed quantity and dispatched quantity. If any variation reasons for the same to be ascertained and commented upon…

Whether all statutory taxes and levies are billed.

12) Whether all statutory payments deposited in time and returns submitted with proper authority in the prescribed time.

13) Delay, if any towards deposit of undisputed statutory dues, to be reported.

14) Details of disputed and undisputed dues of Sundry Debtors, it's age-wise cause-wise analysis, reasons for remaining as disputed are to be reported.

15) Detail study of laid down principles and practice in the matter of selection / allotment of source and / or sidings for supplying goods to the non-core sector consumers. If there are any deviations from the system, details thereof and suggestion, if any.

16) Surface transportation charges billed on customers, booked in the sales bills with reference to lead certificate and work order for goods transportation contract need to be verified.
17) Report on input tax credit claimed against sales tax/VAT payable and maintenance of proper record thereto.
18) Whether incentive bill has been raised timely and correctly as per FSA and realization thereof.
19) Percentage of e-auction on total production.
20) Whether Selection Criteria for e-Auction are followed. If there is any deviation from the system, details thereof.
21) Whether term and condition, including EMD, of e-Auction are reviewed time to time. If yes, details thereof.
22) Percentage of failure by successful bidders of e-auction to lift the allotted quantity of coal during the year. Reason of failure and financial impact thereof.
23) Whether New Coal Distribution Policies (NCDP) are fully implemented. If not, reason there of with details.
24) Whether guidelines issued by the Ministries are followed properly.
25) Applicants have given commitment guarantees during issuance of LOA.
26) Number of complaints and grievances received during the year.
27) Percentage of redressal of Consumer Grievances achieved during the year.
28) Whether DOPs are strictly followed.
29) Whether FSA terms and conditions are being complied with in preparation of coal bills - Comments.

Stores

1. Maintenance of records such as Day Book, Stores receipts, Issue Voucher, Kardex posting, Store Return Voucher, etc. Whether the records are computerized and detailed comments about the effectiveness of computerization.
2. Whether the requirement projected in the Material Budget is substantially higher than the previous period's consumption; if so, whether justification has been given.
3. Whether any item has been included in Material Budget the consumption of which was NIL in the previous year. If so, whether the quantity projected has been justified.
4. Whether materials are consumed before the preparation of Stores receipts, if yes, reason thereof.
5. Physical verification of store materials at random
6. Whether posting in Kardex is up-to date
7. Whether issue of stores materials from Central / Regional Store has been valued as per the progressive weighted average method or any other methods in vogue.
8. Status of recovery of stores materials issued on loan to contractors and employees

9. Whether there are any report of materials received short or in damaged condition and claim made with insurance company/from supplier for replacement
10. Report on avoidable, wasteful expenditure like wharfage / demurrage in incoming material etc.
11. Whether non-moving and slow-moving stores items have been identified, list prepared and circulated to other Areas and Headquarters for its disposal.
12. Material purchased on local purchase basis, but not issued within one month.
13. Report on maintenance of records for scrap and suggestions for improvement & disposal thereof.
14. Report on the scrap awaiting disposal– major items, with the period, since lying as scrap, their approximate value, etc.
15. Comments about the security arrangements such as Gate Pass, Check Post, compound wall, Sound Alarm, Fire extinguishers, etc.
16. Whether the number of items and their quantities mentioned in the Issue Voucher tally with those mentioned in the Gate Passes, where online system is not in vogue.
17. Comments on maintenance of records in Charge-off Stores, value of inventory, period the spares have been lying in charge off stores including return of unused store material to Regional Stores.
18. Whether the number of items of store materials and their quantities issued by the Main Stores tally with those received by the Charge-off Stores.
19. Whether Charge-off stores draws materials from Main Stores when it has them already in its stock.
20. Whether the materials issued by Stores (including the Charge-off Stores) are issued and received by authorized persons.
21. Whether the materials are properly arranged and stacked to locate them easily.
22. List of Plant & Machinery with value lying in stores for more than three months and reason thereof.
23. Value of inventory in terms of number of months' consumption of stores and spares and comparison with previous year's figures.
24. Whether stores materials are laying in Workshop unconsumed for a considerable period of time; if so, reason therefore.
25. Details of reconciliation between price stores ledger and financial ledger need to be furnished after due verification by the audit.
26. Whether approval is being taken from competent authority to write-off/adjustment of the short / surplus stores reported in physical verification. Work shop WIP to be covered.
27. Report on long pending unadjusted advances and sundry creditors with age and reason for un-adjustment to be furnished.
28. Report on Proper and timely accountal of imported materials and stores-in-transit.
29. Report on recovery of ground rent for un-lifted scraps.

Human Resource Department and its Wings

1. **Manpower**

(a) Whether reconciliation of manpower on roll and manpower paid for as per Pay-sheet, is done by the Personnel department and so authenticated in the Pay-sheet.

(b) Reconciliation of number of man-shifts as per attendance, as per Pay-sheet

(c) Checking of fixation of basic pay on promotion, revision of basic pay in disciplinary cases, subsistence allowance and new recruitment etc.

2. **Form B**

(a) Whether photographs of the employees have been affixed and attested.

(b) Whether Form B has been signed by the employees

(c) Whether date of birth and all other columns have been filled up

(d) Whether there are any discrepancies in the date of birth of the employees, with regard to Service Records.

(e) whether there is signature of the Manager in Form B.

3. Attendance (Form C And D)

(a) Whether marked daily and in ink?

(b) Whether signed by Manager.

(c) Whether corrections and cuttings are countersigned by the Manager.

(d) Whether there are any blank columns.

(e) In case of Underground, cross-check the attendance with Cap lamp register and Pit- Munshi report.

4. Leave Records (Form G And H)

(a) Whether maintained in the statutory format

(b) Whether calculation for (i) eligibility for leave and (ii) leave credited have been made correctly

(c) Whether balances of sick and earned leave have been brought forwarded from previous year correctly

(d) Whether leaves availed are supported by applications duly sanctioned

(e) Whether postings in leave register are updated and corrected

(f) Reconciliation of leave with Form "G" &"H" with computer records.

(g) Instances where leave has been availed with no leave balance

(h) Instances where leave has been availed but attendance marked and paid for accordingly

(i) Whether leave due certificate mentioned in the copy of LPC is as per leave record of out-going and in-coming employees.

5. Overtime and Rest Day Workings Records (Form I)

(a) Whether maintained in statutory format

(b) Whether the hours have been written both in words and figures

(c) Whether amount of OT sanctioned is within the delegated powers

(d) Whether OT/Rest Day wages paid have been duly sanctioned

(e) Whether the purpose of engaging on OT/Rest day is mentioned

(f) Whether there are any instances where the employee was on leave / rest day but OT paid for

(g) Whether there any instances where employees have been engaged continuously for twenty four hours (including normal duty)

(h) Whether all the employees of the same designation / category are engaged on OT/Rest day or only a select few of them are repeatedly engaged

(i) % of manpower engagement on Rest day

(j) Whether compensatory rest has been availed in all cases

(k) % of cost of OT & Rest day over total salaries and wages

(l) Variance analysis of cost of normal overtime and Sunday / Holiday workings with Budget and last year's figures showing details of physical and financial terms

(m) (m) Total Trips done during working hours with trips done after working hours, i.e., in O.T. hours to be reported.

6. L.T.C. Records

(a) Whether LTC register is maintained giving all the relevant information like details of the employee, members of his family, age, address, details of previous LTC availed, etc.

(b) Whether the records maintained are sufficient to prevent availing LTC more than once in the same block. Suggestions for improvements may be given along with instances if any.

(c) Whether the Class of travel (I/II Class) has been correctly determined depending on the basic pay and grade of the employee.

7. Salary & Wages Audit

Whether the provisions of wage agreement and executive pay are being followed:

1.	Basic pay including Personal Pay wherever applicable
2.	Fixed Dearness Allowance
3.	Variable Dearness Allowance
4.	Special Dearness Allowance
5.	Attendance bonus/Quarterly Bonus
6.	Transport subsidy
7.	Underground allowance
8.	S.P.R.A,
9.	House Rent Allowance
10.	Night shift allowance
11.	Washing allowance
12.	Charge allowance
13.	Rescue Practice Allowance
14.	Ex-gratia
15.	Recovery of Loans and Advances& other recoveries.
16.	Medical Allowance
17.	Injury Compensation.
18.	Maternity Benefit
19.	Subsistence allowance
20.	Other allowance & Payment including honorarium, award etc.

21.	Incentive, if any.
22	Perquisites, NPA, Coalfields Allowance, Gas re-imbursement etc.

The above mentioned points are only illustrative and not exhaustive. The above components are to be checked with reference to the following:

1) 100% Post Audit is to be carried out in respect of each element of Salary & Wages paid monthly as Basic, DA, Shift allowance, UG Allowance, attendance bonus, OT, Leave Wages, charge allowance, transport subsidy, night shift allowance, LLTC/LTC, etc. with respect to basic records like attendance register, form C,D,E, Cap Lamp issue register, form IV, leave records, LTC/LLTC register, wage board agreement and management circulars etc. and reconciliation of cap lamp register with form C. In case of manual payment of salary & wages, the auditors have also to verify the net payment made with the computerized pay summary and the salary voucher in the cash-book.
2) Checking of salary & wages bill with reference to input data admissible as per pay revision and wage board agreement etc.
3) Checking the recoveries made for PF, family pension and 2% pension, HR, electricity charges, HBA, conveyance loan etc. and reconciliation thereof.
4) Checking of pay fixation arising out of promotion/up-gradation.
5) Confirmation regarding compliance of the observations and recovery of over payment as pointed out in earlier wages audit report. Disputes, if any, arising out of observations made by earlier auditors are to be scrutinized and settled before checking the bills of the concerned employees.
6) Confirmation regarding discontinuation of billing of departed employees.
7) In case of fall back wages, whether the competent approval has been obtained.

Action taken report on previous audit observations with reference to salary & wages.

Rehabilitation of Equipment

(a) Whether the machines rehabilitated covered minimum life (in terms of years and hours) as per norms
(b) Whether cost of rehabilitation is more than 30% of the cost of machine.
(c) Whether cost of rehabilitation per hour (expected life in hours after rehabilitation) is more than the cost of machine per hour (life in hours).
(d) Whether the performance of the machine (% of idle hour and breakdown hours over shift hours) justifies rehabilitation.
(e) Whether the equipment rehabilitation policy of CIL has been followed.

Statutory Payments

(a) Verification of receipts/ acknowledgements for the payment of statutory dues like Income tax, Sales tax, Royalty on coal and sand, Stowing, Excise Duty, Road tax, Insurance etc.
(b) Whether statutory dues have been deposited in time and whether any penalty has been imposed on this account.

(c) Reconciliation of recoveries and payments of (i) statutory dues and (ii) other payroll deductions with financial ledger.
(d) Whether requirement of submission of various Statutory Returns complied in time? If not, details there-off.

Personal Advances

(a) Whether advances are recovered regularly.
(b) Whether second advance has been given before clearing the first advance.
(c) Whether the advances are reconciled with financial ledger and supported by correct schedules.
(d) Whether the Debit Memos for the advances outstanding in the names of employees transferred, have been sent to their new places of posting and details of advances mentioned correctly in their LPCs also.
(e) List of advances (other than House Building and Conveyance advance) outstanding for more than three months with age of advance & reason for non-adjustment.
(f) Whether interest on House Building and Conveyance advances has been calculated correctly and recovered regularly

Other Payments

(a) Whether payments for other expenditures like TA, Transfer TA, LTC, Medical reimbursement etc., have been made as per rules. Any irregularities found to be reported.
(b) In case of telephone expenditure, whether the personal calls are recovered from the salary.
(c) Whether the expenditure incurred for telephone by certain specified executive is within the financial limits set for them.
(d) Whether production incentive has been calculated based on rules/policy guidelines and paid accordingly.

Log Books of Vehicles

(a) Whether the places traveled and purpose has been mentioned.
(b) Whether the meter readings have been recorded and they are in continuity.
(c) Whether the fuel filled up has been recorded.
(d) Whether it has been signed by the Driver and the Controlling Officer.
(e) Whether bills have been raised for personal use of vehicles and amount has been duly recovered from the employees.

Performance of Washery (Specific Additional points)

(i) Capacity utilization of the washeries and the reasons for under utilization, if any.
(ii) Percentage of yield and comparison of the same with the target and last year's figures.

Hospital / Dispensary(Specific Additional Points.)

(i) Bed – occupancy ratio with maximum and minimum occupancy of beds in a year.
(ii) Checking of diet expenditure in relation to no. of indoor patients and comparison of cost of diet per patient with reference to last year's figure.
(iii) Physical verification of medicines and other related material with reference to receipts and issues.

(iv) Check the information relating to expired medicines their cost and disposal.

(v) Budgetary provisions and allocation is to be compared with the actual expenditure both under capital and revenue heads.

Legal

1. Comment on performance of the department in reference to its Annual Action plan (AAP).
2. Whether empanelment of lawyer is maintained and it is modified from time to time with the approval of the competent authority.
3. Number of cases pending in different court as well as in Tribunal.
4. Report on ex-parte verdict enforced by Company legal counsel.
5. Whether empanelled lawyers are paid as per schedule of legal fee of the company.
6. Number of Arbitration cases pending before Arbitrator and Number of Arbitration held during the year.
7. Number of Arbitration cases settled in favor/adverse and appeal filed by the company against adverse award of the Arbitrator before the court of law. If not, reason thereof.
8. Advocate wise legal fees paid during the year.
9. List of Foreign Lawyers outsourced during the year.
10. Opening balance and Closing balance of outstanding cases in different tier of courts/tribunals with its present status.

CORE -HRD

1. Annual Action Plan (AAP) of the department.
2. Comment on performance of the department in light of AAP.
3. Is there any training Schedule and whether training are conducted as per Schedule.
4. Number of Technical Training held during the year and number of participants.
5. Number of Non-Technical Training held during the year and number of participants.
6. Training held up to E-5 Level and number of participants.
7. Training held for E6 to E8 level and number of participants.
8. Whether requirement of trained technical/skilled employee is assessed regularly? What steps are taken to fulfill the requirement?
9. Report on how many unskilled manpower of land oustee imparted training.

Welfare

1. Activity-wise Welfare Budget vis-à-vis expenditure indicating % of achievement.
2. Annual plan for Plantation and actual performance.
3. Reclamation to be made during the year and Provision made for the same
4. Whether there is Disaster management system prevailing or not. If yes comments on adequacy of

the system and suggestion for improvement.

System

1. Whether A.M.Cs exist to protect the hardware and software of the company.
2. Whether the hardware and software installed in the office are fully utilized
3. Whether there is further scope of inclusion of more functional areas through System department
4. Whether the company has an approved IT strategy /plan.
5. Whether the operations of the company such as financial accounting, sales accounting, personal information, pay roll, material/inventory management etc. have been computerized.
6. Identifying the Area where the built in check in the computer environment needs to be reviewed.
7. Is there a document retention policy to eliminate the problem of extracting information from computer file due to lack of back up of past record.
8. Whether the company is able to take full advantage of the software or if some report that can be prepared using the software but not been prepared due to lack of training staff or any operating manual.
9. Whether a system of proper documentation of software program exists.
10. Whether changes made if any in software have the approval of the management and lead time given to staff to be familiar before it is made operational.

Chapter 16
Services and Activities of the industry

Industrial Mining Activities refers to mines that are currently engaged in mineral and metal extraction operations. The materials can range from common to precious and from inert to hazardous. The mines themselves can be small or very large in size.

The most common pollution problem for an active mine arises from the disposal of mineral wastes, mainly mine waste rock and tailings. Mine waste rock is the material removed to access or exposes the valuable ore and is typically enriched in some constituents of the geochemistry of the ore. Tailings are the waste materials after the minerals are separated from the ore in a mineral processing plant. They typically contain the valuable constituents in low concentrations, unrecovered by the process, and may also contain toxic residues of chemicals used in the separation process.

Mine waste rock often generates acid drainage when air and water come into contact with metal sulfide minerals, and the resulting sulfuric acid solutions contaminate surface water bodies and groundwater. The same phenomenon can also arise from tailings repositories, and both types of waste are sometimes deposited in structures that can suffer catastrophic failure. Rarely, mines will discharge the tailings into surrounding waterways, sometimes at high volumes. The high volume can negatively affect the agricultural and aquatic systems of the area, damaging farmland, and riverbeds. Accumulation of the tailings can cause riverbeds to become shallow, leading to overflowing and flooding.

Economic ore deposits contain many chemical elements in addition to those that are extracted for sale. Some of these are toxic, and they are often present at concentrations that pose risks to the environment and human health. These elements can occur in mineral waste repositories and in the exposed walls of excavations. They can be leached from both sources, transported by wind, or taken up by plants and animals in the human food chain. Physical agents such as asbestos and crystalline silica can also be windborne, and radioactive minerals pose their own set of risks. Substances emitted from or present at mine sites can enter the body in a variety of ways such as inhalation, absorption through dermal contact, or ingestion of contaminated food and water.

A number of health effects may result from active mine pollution depending on the specific substances present and their concentrations in air, soil, food or water. Unless a major accident occurs, the effects are often chronic in nature and include irritation of eyes, throat, nose, skin; diseases of the digestive tract, respiratory system, blood circulation system, kidney, liver; a variety of cancers; nervous system damage; developmental problems; and birth defects.

The aim of environmental regulation of mining operations by governments is to improve performance and to reduce emissions and the risks they pose to the environment and human health. Problems arise either when the law does not set strict enough limits on permitted emissions or where there is no effective enforcement of applicable laws, or both. In such cases companies may undertake voluntary emission reduction programs, often under pressure from civil society organizations. Such initiatives include installation of effective wastewater treatment, alternative waste disposal methods for mine tailings, etc.

Chapter 17
Audit of Operational Activities

Covering various Production/ Service Units to scrutinize various activities including:

Consumption:

In order to verify this issue, internal audit to focus special attention to:

(i) whether norms have been laid down by the company/industry allowing specific percentage of consumption of raw materials, allowances made under normal wastages, percentage of loss allowed in respect of evaporation of liquids like Petrol and HSD over a period of time.

(ii) whether any review has taken place since the said standards of consumption have been set by the company and whether all the circumstances under which the said standards have been established, are still continuing and do not undergo any change requiring re-fixation of the said standards.

(iii) Whether the company has been collecting the data relating to the actual losses and standard losses and periodically reviewing the situation to effective monitor with a view to reduce the losses.

(iv) Where the input is more than the required grade in view of the non-supply or non-availability of a particular grade/quality of the material. In such a case, internal auditor to verify with the material purchase department as to what action has been taken by them for ensuring supply of correct grade/quality to arrest excess consumption: For e.g. Where coal of say B grade is required and in the absence of availability of B grade coal, C grade coal may be used and this would result in more consumption of coal. These types of instances are to be analyzed for the purpose of exercising strict control over the consumption of resources

Wastages

The wastages are to be classified into normal wastage and abnormal wastage and the normal wastage is required to be absorbed by the normal production in regular manner. The abnormal wastage is to be treated separately and should find place in the costing profit and loss account. Internal Auditor may compare the normal wastage with the industry wastage and suggest measures for control of the same.

Variations

The internal auditor should find out the various activities that have taken place during the entire year as such to find out any factors have contributed for the variations, significantly. For the purpose he should go through the MIS reports of the company, different stages of operations of the unit etc. Time over run and cost overrun projects would significantly contribute this variations and a suitable comment in the internal audit report should be made regarding the effect of the variations that have taken place in the company.

Efficiency

When the company has prescribed the standards, limited the normal wastages to permissible level of operations and effectively monitors and controls the operations of mining, then it is possible to measure the efficiency in terms of the output as envisaged at the start of the project. The efficiency is to be measured, analyzed and compared for identifying the areas of improvement and Efficiency-cum-

Performance Audit review is to be undertaken periodically for effective monitoring.

Various incentive schemes, some of which are dependent upon the efficiency, if declared by the management and are implemented, then it is the responsibility of the internal auditor to specially verify whether the efficiency at the stated level has really been achieved or made up on paper only for the purpose of getting the incentive?

Check list

1. To verify and co-relate the purchases with the material consumption as stated by the company.
2. To verify the closing stock of inventory, WIP and FG of previous year with the opening stock of the same in the current year.
3. To identify from the company's policy regarding the declaration of valuation of goods and classification of various items into non-moving, slow moving and fast moving.
4. To get the list of non-moving material and to verify whether any provision is made in the accounts.
5. To verify that the non-moving material list shall not contain any of the insurance-spares which will be used only in emergency.
6. To check the normal consumption of raw material, compare them with the previous year's figures to identify to near about correctness of the accounts.
7. To check the consumption of raw material with the industry norms and comment on the consumption for improvement, when necessary.
8. To evaluate the normal percentage of wastage in the normal way and compare the actual with the industry norms.
9. To check whether the company is preparing the various variance analysis reports and if so, to identify the possible areas for cost control and cost reduction; if not suggest the system to be adopted.
10. To check whether the costs collected from the respective cost centers are booked in proper way – materials, labour and direct expenses
11. Labour incentive payments are to be checked with reference to the production based on which the incentive is calculated.
12. To check the statutory liabilities - payments and its outstanding amounts like royalty, excise duty, customs duty on imported materials etc. to arrive at the correct picture for identification of proper allocation of costs.

Chapter 18
Audit of Special Areas with reference to peculiar transactions

(i) Valuation of Over Burden Removal (OBR) accounting:

Valuation of Over Burden Removal Accounting in the Company and its accounting treatment is a vital area which the Internal Auditor has to focus up on. As the term OBR itself as an overburden to the Company in measuring its regular operational activity or performance, the volume of its length and height in financial terms has to be assessed with operational performance.

Internal auditor has to examine and check the technically evaluated average ratio of OB removed Vs the Ore (say Coal/metal) production in the Company. In the case the Company has adopted Accounting policy on OBR Internal auditor to ensure such accounting policy is followed and deviations, if any are commented up on. In case the Company is not having any such policy internal auditor may suggest a suitable accounting policy keeping in view of the technicalities of the Mine. In case the OB Removal is adopted in books of accounts, it should be in line with AS 26, if applicable.

Inventory Valuation

Inventory valuation in Mining industry may be broadly divided in to three categories

a) Run of Mine(ROM) Ore
b) Work In progress
c) Finished Product

Any Ore is recognized as Inventory when once it is extracted out. Inventory is measured in to either cost or realizable value and as determined under AS-2. Various Cost methods also available for Inventory valuation like FIFO (first in first out) or weighted average method etc.

a) Run of Mine (ROM)

This is valued at Cost Price by taking all the relevant costs till its transportation to the screening plant or dumping yard. ROM is calculated from various process involved like blasting, grouping, staking, extraction to identification /signification of the raw feed including its transportation cost.

Internal auditor has to check the total cost of mine product i.e. Ore to finished product (if possible Grade wise) activity wise and has to check and reconcile the cost in contrast to its pie in the inventory valuation.

b) Work In progress

The valuation of Work in Progress needs to identify the stages involved in the accumulation of WIP from ROM. As the WIP itself says the work is still in progress and surpasses few stages. Internal auditor has to assess the stages of semi-finished product and to segregate the costs involved in various stages besides material cost, which needs to be demarked and valued with involved input and output ratio also.

However there are challenges in measuring the Inventory in mining and metallurgy industry due its inherent typical situations and geographical permeations and combinations. Therefore needless to say the Internal Auditor has to rely on technical valuer’s or expert’s certification also at times in proper valuation of WIP.

Quantitative measurement of WIP in various stages, may be in underground, in smelters, refineries, pipelines, duct, vessels, stock piles, hoppers etc., needs to be assessed technically and supported by technical valuer certificate is to be cross checked by Internal Auditor, with necessary adopted and available checks and balances.

c) Finished Product Valuation

Finished Product is valued at cost or realizable value to the respective Mine or metal Products. However where there is specific declaration authority is vested to the respective finished product (say like Coal grade wise) with technical competency such finished products shall be valued at such declared value.

The rule three in inventory valuation is to be checked as to:

The purchase cost, if any, is to be determined and valued,

The conversion cost (including cost of segregation) of material/ore needs to be taken in to account.

Any other costs involved in bringing the inventory to the point of valuation including transportation and stacking needs to be considered.

In any case it is needless to say that internal auditor has to ensure for the low grade quantity of metals/materials/ore, if any, its future economic value/benefit needs to be kept in mind for valuation purpose. A proper basis of valuation of earlier times, if any and its corresponding funds flow(even at discounted rates) to the low grade inventory existed, needs to be examined by the Internal Auditor for such past valuations, done, if any.

(ii) Classification of grade of minerals and metals

The Internal Auditor has to study the nature and salient features of the Mineral Product and its technical process supported by its Detailed approved Project Report (DPR) to assess the classification of mineral and metal grading. For the classification of metal/mines internal auditor has to depend up on the Technical Reports like coal controller authority for grade classification and to determine the revenue realization basis and inventory to avoid any misclassification and revenue leakage.

(iii) Mine closure plan

'Mine Closure Plan' which is otherwise known as forestation and its treatment/provision is equally important to check. The Mine Closure plan has two components:

a) Progressive or Concurrent Mine Closure plan and

b) Final Mine closure plan.

There are various formalities and applications/procedure for closure of Mine Closure Plans. In this aspect Internal auditor has to examine the policy of the Company and its treatment in books of accounts on the expenditure on mine closure and its treatment of the same. In other words, the company is to lay down the policy for making provision of the future expenditure at the time of mine closure, to accommodate in the per ton cost of the ore/metal/mineral. Internal Auditor has to follow the checks and balances as per the specific Company norms applicable and obtained. The Mine closure plan includes the following checks and balances to be observed by an auditor like

i) Reasons for closure

ii) Statutory Obligations

iii) Closure plan Preparation,

iv) Mine Description,

v) Reserves

vi) Geology,

vii) Mining Method and

viii) Closure Plan etc.

e-Procurement/Tendering:

e-Procurement is the process wherein the physical tendering activity is carried out online using the Internet and associated technologies. e-Procurement enables the user to introduce ease and efficiency without compromising the required procedures of the organization.

e-Procurement provides transparency, results in savings of time and money, shortening of procurement cycle, ease of operation to the implementing organization and to the vendors. In the initial phase, complete e-Tendering Module will be implemented in some Companies. Auditor has to check the process and sequence of operations being carried out are true and correct.

Three main components required for e-Procurement operations that an auditor has to check are:

1. **Application Software**

The application is the software which makes it possible to carry out the procurement process online using computers and internet, replacing paper based documents. The application plays a pivotal role, as it is responsible for actual execution of the tendering process online. A robust and dynamic application seamlessly integrates with the existing systems allowing the user organization to customize it according to organizational policies.

2. **Hosting and Bandwidth**

The application has to be hosted at a secure site where bandwidth is not a hindrance when multiple users are logged on the system. The application has to be up 24X7 for e-procurement to achieve its objectives. The reliability of the server and the bandwidth assurance for load bearing in terms of simultaneous usage, are inevitable for the smooth implementation of e-tendering for any organization.

3. **Security and Legal Sanctity**

E-Procurement involves a high amount of commercial transactions and also publishing of organization specific sensitive data on a public domain. High-level of security has to be ensured so that there is a trustworthy access-control technology and authorization policy in place. Security has to be maintained not only of the data that is stored on the server but also of the information that is in transit, e.g. the bid documents or the bid figures being sent to the server by the vendor. The e-Procurement process and the policies that are implemented for the security of the data and communication have to comply with the IT Act of the country so that the transactions and disputes (if any) arising there from, are admissible in the Court of Law. Non-repudiation has to be taken care of within the purview of the Law, for the assurance to the organization and the vendors. Indian IT Act has well defined provisions for documents submitted online, electronic records and digitally.

Chapter 19
Audit of Functional Areas

Administration Department

Before the internal audit is taken up it is very necessary to obtain and examine the organizational chart to find out how the company is organized, who reports to whom and the geographical location of the company spread over various places including the mines, marketing offices, delivery points, loading points, quality control etc. The general system of administrative set up is required to be understood by the internal auditor for the effective understanding and functioning.

Check list:

Internal auditor to check:

(a) The Budgetary Control in operation in the Company and the Comparison of Administrative budget broken down for various administrative functions like Recruitment, HR Training, Watch and ward, Safety, Health, Environment, Office and General maintenance etc. to Actual expenditure and deviation reports for management action, if any.

(b) Check up the administrative offices located at various parts and their linking with the cost centre system, if any, for Control purpose through collection of a system on administrative costs

(c) Administrative policy of the company and its adherence and the treatment to be given to the new employees with reference to the benefits including the permissible benefits.

(d) Induction Programmes to the new entrants of the Organization and Training Programmes (including quiz, elocution competitions etc.) to the employees on a continuous orientation scheme.

(e) Observation on Conducting Mining and Safety Weeks, Competitions as per applicable mining Rules.

Purchase/ Material Department

Purchase/ Material Department including Tendering and Bid evaluation; Contract, Procurement and Purchasing, Stores Accounting and Inventory Valuation

Many of the organizations dealing with the activity of mining will be having their own specific purchase manual which will deal with all the topics in an exhaustive way. Obtaining a copy of the copy of the said manual will always help the internal auditor.

Check list

Internal auditor to check:

(a) check the policy of the company for procurement of material

(b) to check whether the company is having policy for e-tendering

(c) to check whether the systems are in place for proper receipt, accounting of the material with documentation.

(d) To check delegation of Powers to various officers and LOA and to verify whether proper authorization has been given for the drawal of material by the user departments

(e) to identify proper procedure for the stores accounting of the material, inspection at the time of receipt and quality inspection stamps, authority for the issue of materials etc.

(f) to check the periodical slow moving/non-moving materials list and check whether proper provision has been made for the same in the accounts

(g) to check the procedure and policy for identifying the obsolete materials and their disposal

(h) To check the percentages fixed for the normal losses, evoporational losses for the oils and liquids as well as other losses with reference to the storage of the material and their accounting

(i) To identify the rejected material and its separation and return to the supplier

Finance and Accounts Department

This is an important area of verification for the Auditors. As the finance is the life blood of any organization all the activities will ultimately reflect in finance, it is very essential that the Finance and Accounts Department is having all the requisite controls and proper systems are established and maintained. If the organization is having any Finance Manual, it is required to be considered for identifying the procedures. Further the delegation of financial powers also should be considered for identifying whether the authorization of the expenditure was done at the appropriate level with authority.

Check list

Internal auditor to check:

a) To check whether proper account codes have been given to all the Head of Accounts which is regularly used or otherwise for the purpose of bringing all expenses and Income broken down to material, labour and expenses within the Trail Balance for systematic and easy preparation of Financials.

b) To check up the financial delegation of authority and FC in operation.

c) To check up un-used, or abandoned machinery lying in the company which has a bearing on the cost

d) To check whether proper accounting control exists for accounting and identifying the non-cost items

e) To collect and check the internal audit reports of the previous year's which may have a bearing in the current period

f) To check any cases instituted by the tax authorities and pending before any judicial authorities

g) To check whether the statutory payments/taxes have been made by the company within the prescribed time and no penalties has been paid.

Work In Progress (WIP) and Finished Goods

Special mention is needed for the certification of the WIP and Finished Goods. Though AS-2 governs the provisions relating to the valuation of the closing stock, it is necessary to properly find out the cost of production arrived at for the purpose of finished goods. It is pertinent to keep in mind whether the goods are excisable or not and if they attract the excise duty, whether the company has discharged its liability towards the central excise duty. There is general tendency of some of the company to overvalue the closing stock for getting bank finance and it is the responsibility of the internal auditor to properly verify the records and certify the value of closing stock. Further the internal auditor should insist upon the system of physical verification of raw material and also the annual physical verification of the closing stock in mining like coal.

In respect of the coal companies, the holding company viz. Coal India Limited would be sending a team of experts for the measurement of the coal at the end of the financial year and they give an allowance of + or – 5%. The coal or ore is arranged in heaps on the ground and the volumetric measurements are taken and accordingly the total stock is arrived at location wise. Wherever the physical stock exceeds the book stock beyond the aforesaid limits, then detailed investigation is undertaken by the Holding company into the activities of its subsidiary companies and the quantity, grade and value of the coal as declared by the verification team of Coal India is being accepted by all statutory authorities.

As regards the various stock of National Mineral Development Corporation, there is no system of physical verification of the ground stock with the book stock and whatever be the book stock, the same is taken on record without further undertaking the physical verification of stock.

Check list

Internal auditor to check

(a) to check the system followed for the physical measurement of heaps of coal or other ore lying in the yard and how the volumetric calculations are adopted by the company
(b) to check the OBR valuation which is very important with reference to the stripping ratio and OB ratio as given in the DPR
(c) to check the system followed by the company for the declaration of various grades of coal, which will be done by the designated authority
(d) to check the closing stock valuation with reference to the declared grades of coal and the system followed for the coal extracted from a new mine which is yet to be tested and certified/graded by the competent authority
(e) to check the differences between physical stock and book and identify the differences to find out whether they were within the permissible limits or needs reverification and certification by external agency.

Marketing and Distribution Department

The expenses relating to the marketing and distribution department play a very vital role in the cost records as they will be added separately as a part of the selling and distribution overhead. Adequate care is required to be taken for collection and segregation of the expenditure relating to the marketing, advertisement, identifying the allocation of the expenditure, apportionment of the total expenditure where the benefit of high cost TV advertisements would be spread over a period of more than 12 months in which case, it is appropriate to treat as deferred revenue expenditure.

Check list

Internal auditor to check:

a) to check the Budget of Marketing and Distribution department and it's comparison with actual expenditure.

b) identify the heavy advertisement expenditure incurred in respect of electronic and print media and its approvals as per Company policy and to check its allocation and apportionment of the same in the subsequent years where its benefit passes for more than one year or subsequent periods.

c) to check the incentive policy of the Company and the commission paid for the sales relating to the turnover and verify that the same is forming part of the selling and distribution overheads or not.

d) to check whether the company is having any marketing/sales/distribution offices located throughout the country and identify as to how the expenditure is collected, allocated and apportioned to the cost sheet and ultimately to the product.

e) to check the policy of the company – whether any credit period is extended or cash and carry scheme is in operation, for identifying the system of realization of the sale proceeds.

HRD and Personnel Department

Verification of policy documents on the HRD and Manpower would be helpful for the internal auditor to identify the system lapses if any. In many large sized organizations it happens in such a way that SAP would have been implemented and at the time of implementation, certain group of employees would have been shown under a particular branch or department or cost centre. Subsequently, from time to time, periodical changes that happen, would not take place in the SAP, resulting into continuance of the old practices. Unless adequate care is taken for the segregation of the labour and identify the employees whether they are working in the same department/cost centre as their pay bills have been debited or not. Any deviation in this would result in under/overcharging of labour to that particular department or cost centre.

Check list

Internal Auditor to check:

a) the employee's ids are matching with the labour booked at the respective cost centre

b) the correct wages have been booked to the respective cost centres.

c) to check the allocation of the salaries of the managers and others in the administrative offices as well corporate office and proper accounting for the same.

d) to check the basis for the apportionment of the Directors/Managing Director and other corporate personnel to the cost of production.

IT Department

At the first instance, internal auditor should go through the policy of the company in respect of Information Technology and if any SAP system is introduced, should obtain the complete documentation/manual for the same. He should verify as to the internal controls exercised by the IT department in respect of feeding of the information into the system, its periodical break up. Internal Auditor should identify the appropriate authority in the IT department who has been vested with the permission to change/modify the programmes and whether proper back up is being taken up for the systems. Periodical change of passwords is also to be ensured for ensuring effective control over the operations. The system of keeping the back of the systems and its safe custody also should be ensured.

Check list

Internal auditor to check:

a) Proper administrative system is established with reference to the I T policy of company.
b) Proper control is exercised by the management in respect of modifications/changes to the programmes and the authorized persons are only making changes to the programmes
c) Passwords are changed periodically and proper backup system prevails in the event of unexpected disasters.

Transportation

In respect of the mining and metallurgy industry, transportation plays a vital role. The cost of transportation particularly in the coal sector is very significant and there is large scope and need for the checks to be applied.

Special Points of checking:

(i) Whether prescribed procedure has been followed by the company in issuing the advertisement and notice inviting tenders;
(ii) Whether proper care has been taken for identifying with reasonable authenticity the lead for transportation viz. from the pit head to CHP or loading point as the case may be;
(iii) Whether the said lead is certified by the appropriate authority and reasonable care and caution is exercised in every instance wherever the lead is undergoing any change.
(iv) What was the existing rate prevailing in the near vicinity of that area for the purpose of comparative purposes;
(v) Whether all the tenderers qualify to participate in the bid or are they disqualify for having failed to discharge similar such transport contract either in that area of that company or in any other areas of similar such companies
(vi) What is the back ground of the transport contractor whether he was any habitual offender in respect of payment of taxes to the Government
(vii) Whether the weighing machines have been properly calibrated at periodical intervals by authorized persons and the certificates to that effect are made available in the company
(viii) Whether the transporter has given a list of dumpers of various capacities before the start of the work and the actual transportation has been undertaken with those vehicles only and there was no deviation;
(ix) Whether the transport contractor has deployed those vehicles which was supposed to have been deployed by him as indicated in the tender notification and there was no violation or deviation there from.
(x) The transport contract did not violate any the legal provisions in respect of deployment of the Contract Labour either under the Contract Labour Act or paid the minimum wages as prescribed under the Minimum Wages Act.

Chapter 20
Cost Audit specific to the Industry

Government of India, Ministry of Corporate Affairs, Cost Audit Branch had issued an order dated 24.1.2012 ordering for cost audit of the records of the company engaging in mining and metallurgy of ferrous & non-ferrous metals covered under Chapter 26 and 74 to 83 (except chapters 76 and 77) under the Central Excise Tariff Act, 1985. The above order is applicable to those companies who were engaged in mining and wherein the aggregate value of turnover made by the company from sale or supply of all its products/activities during the immediately preceding financial year exceeds hundred crores of rupees, or wherein the company's equity or debt securities are listed or are in the process of listing on any stock exchange, whether in India or outside India, shall get its cost accounting records in respect of each of its financial year commencing on or after the 1st day of April 2012, audited by a cost auditor, who shall be, either a cost accountant or a firm of cost accountants, holding valid certificate of practice under the provisions of Cost and Works Accountants Act, 1959.

All intermediate or final products and articles or allied products of mining industry if included in any of the chapter heading mentioned shall also be covered under the above said order. Every company to which the above order apply shall follow the revised procedure for appointment of cost auditor as laid down vide Ministry of Corporate Affairs' General Circular No. 15/2011 dated 11th April 2011. The audit shall be conducted in such manner as will enable the cost auditor to prepare the report in accordance with the Companies (Cost Audit Report) Rules 2011 dated 3.11.2011. The report of the cost auditor shall be forwarded to the Central Government in the prescribed format within the time stipulated under the said Rules.

On par with the financial Auditor, Cost Auditor also has been placed on the same footing and he shall also enjoy the same powers to call for information, inspect the documents and take all undertakings from management in the best possible manner for discharge of his duties as Cost Auditor. For discharging his duty as cost auditor he has to verify and certify that the company is having adequate internal cost audit system which is commensurate with the size of the company. For discharge of his duties Cost Auditor may call for the appointment letter(s) issued to the internal cost auditor for ensuring that the internal cost audit system exists. Further the quarterly internal cost audit reports are required to be examined to find out any reporting of system lapses and the corrective action management has taken. The report of the Cost Auditor will be sent to the Government in the prescribed pro -forma and the Performance Appraisal Report in Form III will be an excellent tool in the hands of the management for improvement of the performance of the company.

The Performance Appraisal Report given by the Cost Auditor to the company will deal with various internal controllable factors like utilities, product efficiency working capital and some of the factors outside the purview of the company like competition, price variation etc. The Head of the internal audit team of cost records should develop a comfortable relationship with the management and statutory auditor including cost auditor and on the observations of the internal cost auditor are vital and essential for the cost auditor and also for the statutory auditor to base their reports and observations. It is the general practice that the internal auditor, whenever he observes any of the adversaries or points of debate, he should collect all the information, key documents, management representations, undertakings and declarations from various levels of management for being produced before the audit committee or at the time of replying to queries that may be raised by either management/Auditors/Government (in some cases, in respect of government companies).

Further to the above said Order dated 24-01-2012, MCA has issued another Order dated 03-11-2012, in supersession of the earlier Orders categorizing the Mineral Products, Mineral Fuels, Primary ferrous and other metal Products in Table-II and mandating the Cost Audit in similar criteria of turn over exceeding rs.100.00 Crores in previous Financial Year or the Company's equity or debt securities are listed in any Stock exchange or in the processing of listing in India or abroad etc. as given in Circular dated 24-01-2012, in respect of each of its financial year commencing on or after the 1st day of January 2013, audited by a practicing Cost Accountant or a firm of cost Accountants.

The Internal auditor has to ensure the maintenance of Cost Accounting Record Rules as applicable to Mining activity as per MCA notification dated 03-06-2011 is adhered to, in the Company and Cost Records for materials, labour, other Utilities and Overheads expenses are being maintained.

It is imperative and need not be elaborated that the objective on maintenance of Cost Records is to determine the Cost and margin per unit of the Minerals being explored.

However as regards Cost records maintenance to the mining and metallurgy activity is concerned, the collection and recording of technical details is of predominant importance as these elements are key factors for record maintenance. The technical data inter alia covers the following.

a) Detailed approved mining Plan from DG of Mines
b) Licences/statutory approvals/permissions for mining activity, with any limitations on exploration.
c) Budgeted approvals of the mining activity on estimated quantity/exploration/ Deposit/capacity area wise (mining) and its corresponding Revenue and expenditure, year wise.
d) Action plan and Committee approvals, if any with estimates and targets fixed by fiscal year wise.
e) Statutory bar(s) or any Court Orders on stoppage of activity.

All the above quantified details tabulated Activity wise in Cost records for Materials, labour and other expenses shall give meaningful data and can be factored in decision making also. The other important factor for obtaining technical data/estimates for Record maintenance is that abandoned/closed activities for various reasons(which is common in the Industry on account of various factors) makes/change the Cost from Normal to abnormal/sunk cost. The Internal auditors has to keep a watch in these lines through continuous monitoring of the mining activities being carried out and advise on Risk factors by risk analysis.

As regards Cost Centers determination and pooling of Cost Center wise expenses is concerned although broad classification of the following Cost (expenses) centers is explained it cannot be generalized for Mining and Metallurgy activity as it varies from Ore to Ore to metal, or to metal fuel etc., as extraction of Mine/metal may be unique in its own variety and involves specific methodology/operation.

Cost Centers

A) Over Burden Removal (may or may not be to all the mining activity) and recording its cost as a separate element of cost, which is ultimately to be absorbed by.

B) Marking and Drilling activity(Open cast/Specific casting)

C) Blasting activity(especially in Lime stone mines)

D) Material Handling activity

E) Transportation activity

F) Crushing or Other Processing activity

The above are few examples of Production Cost Centers (not exhaustive) can be identified for the purpose of maintenance of Cost Records, where in the Quantitative Records/details are of paramount importance to determine the major element of Cost of Production/extraction.

Material Consumption Records

Details like Production, issues to other activities and balance of all types of Raw materials with unit of measurement, needs to be maintained for each of the above activities. The Valuation of receipts (Production) and issues are to be done in accordance with the Cost accounting standard 6, issued by the Institute of Cost Accountants of India. This will help not only for valuation of Inventory as per Cost Records but also facilitates to counter check the

- input/output ratio
- efficiency/yield ratio
- usage ratio
- Bottle necks etc.

Salary and wages

Each activity wise direct labour, indirect labour, office staff and management remuneration needs to be maintained to assess the labour cost and related Overhead cost.

Utility Cost

Besides the material Cost and labour cost, cost of Utility like Explosives, Water, Coal, Steam, gas etc. utilized to extract the Production needs to captured activity wise.(drilling, Blasting, Transportation etc.)

Besides the above production Cost centers, general Service Cost Centers like

- Work shop/Mechanical Maintenance,
- Civil maintenance,
- Electrical maintenance,
- Chemical maintenance/Quality Control/Testing(where the Chemical treatment is required for

metals for segregation),

- Safety implementation,
- Inventory/Stores maintenance,
- Staff Welfare/quarters/township maintenance (Dispensary/school/Crèche etc.),
- Pollution Control/Environmental activity,
- General administration etc.

All the above Service department expenses needs to be captured Service Cost center wise and the allocated to Production activities for apportionment and final absorption as the case may be.

The role of Internal auditor besides ensuring Cost and Statutory maintenance of Records but also to focus on peculiarity of the transactions and analysis of cost elements having bearing on the Cost of Production that warrants by the industry activities like

- Pre-Closure/abundance of operations of a particular activity/area,
- Major Non Cost elements,
- Activity related abnormal Costs compared to size and volume of activity undertaken for intentional purpose, if any.
- Cost of Re-closure of mining activity undertaken and its Provision and treatment in books etc.

Chapter 21
Audit follow-up

After the internal audit report has been submitted by the internal auditor, the management of the company would prepare the reply to the points raised by the internal auditor and place them for discussion before the Audit Committee. The Chairman of the Audit Committee would be an independent Director of the Company and the Audit Committee comprises of members of wisdom and experience in the industry, trade, finance and accounts besides core competency. The report of the internal auditor would be discussed in the quarterly audit committee meetings and corrective action will be suggested. In cases, where the internal auditor points any deviation or practices or non-implementation of the policies by the management at different levels, the management at the helm during the meeting would tend to justify their stand for the deviations. It is necessary that the internal auditor should be prepared to collect the documentary evidence for the adverse observations made by him and that would shield him from any of the defenses management may advance during the time of audit committee meeting.

The approach of the internal auditor should be proactive, in the interest of the company and keeping in view the professional standards. He should not be a part of the activities of the management so far as they are not authorized or legal. In the event that there were any financial misappropriations, embezzlement of cash, collision of the management staff with others for pecuniary benefits etc., internal audit cannot escape himself from the liabilities arising out of those transactions.

The Institute of Internal Auditors definition of a follow-up: "A follow-up is defined as a process by which the internal auditors determine the adequacy, effectiveness and timeliness of actions taken by management on reported audit findings."

The value of the audit must be assessed to assure that the findings and recommendations, reflecting cost-conscious, workable and timely solutions, have been achieved to some quantifiable degree and provide value to the organization. Unfortunately, this does not happen as often as it should in practice. More organizations would not outsource their audit function if they gained a thorough understanding of the savings and improvement to operations and processes the audit can bring.

The bottom line is how does audit enhance an organization's value? Follow-up is the answer, if an organization is to understand what value audit can have to improving operational integrity, efficiency and effectiveness. By looking at the prior audit recommendations of earlier work, auditors are able to assess if the agency, company or corporation has taken any action toward the report recommendations. If it has, a process is in place to try to assess what impact those recommendations had and to formally report the assessment and findings. Often, auditors will receive direct feedback from managers, supervisors or staff that their actions were the results of an earlier audit report. In some instances, they may even provide direct information and cost figures on how much is being saved as the result of new controls in place or improvements to the existing processes.

Where agreed action plans are not completely implemented the auditor asks the following questions:
What remains to be done?
By whom and when?
Have alternatives been implemented that may be more appropriate?
Has the agreed action plan ceased to be of value?
If no action was taken, why not?
What is the issue or concern causing inaction?
The end result should be a brief summary of the status of every action plan agreed upon. The final summary is reviewed with the person responsible for clearing the audit report before the follow-up report is issued.

Once the Internal audit has been completed and the internal audit report has been discussed and submitted to the Audit Committee and/or management, a list of findings, recommendations and prescribed actions are compiled with specific timelines for completion clearly indicating the manager responsible and for longer projects, the various crash-gates to be followed and periodicity of the interim report. It is the duty of the internal audit function to establish a follow-up process that helps the management to ensure whether or not the recommended actions have been effectively implemented or has the management accepted the risk of not taking the requisite action. An annual review and Report of Outstanding Audit Comments has to be adopted by the Internal Audit function to meet the needs of the management and to be complied with the follow-up requirement noted above.

To facilitate the follow-up process, Internal Audit function maintains a database of outstanding audit comments. This database tracks identifying information about each Internal Audit report or close-out letter along with a summary of each finding in the report or letter, the manager responsible for taking corrective action, and the estimated completion date for corrective action. Audit comments issued by external audit groups should be loaded into the database when they are received. The database will also track, whether or not a deficiency/ short coming has been corrected, what was done to correct the issue, whether corrective actions should be tested, and the date corrective action was complete.

In most cases, follow-up reviews will be done jointly by the head of internal audit team and the management. However, if requested by management, follow-up on the status of selected findings in a separate review may be presented on a more frequent basis. Also as time is available during the year, inquiries about and status of previously issued findings may also be reviewed. Approximately 3 to 4 weeks before the annual follow-up is scheduled to begin, the completeness of the Findings database is compared to list of pending issues. If any reports have not been entered into the database, have the internal audit function must complete the report and findings forms and have this information added to the database. Once the database is confirmed as being current, the queries and report programs that are used to create reports shall also be updated.

The head of Internal Audit team should prepare a memorandum for the management that notifies them that the internal audit activities are underway and describes the follow-up process. This memo should include:

- timeframes for the project,
- a copy of the outstanding findings relating to areas reporting to the manager responsible,
- a request that they distribute the findings to these areas and ask the managers to provide Internal Audit team with the information requested,
- a statement that these comments were previously distributed as part of an audit report or close-out letter, and
- notification that the results will be reported to the management.

The notification memo should be sent to each functional head along with the status of internal audit findings for each finding related to the function's areas of responsibility.

As the findings status are updated and returned to Internal Audit team, the information should be reviewed for reasonableness, completeness and adequacy. The internal audit team, with the approval of the functional heads, shall determine which of the responses need to be tested and what level of testing is appropriate. Working papers and work programs should be generated and reviewed as with any other audit project.

At the conclusion of the test work and after updating the Findings database, reports of outstanding or closed findings and a cover letter of explanation should be generated and distributed to the following groups allowing approximately 2 weeks for each group to review and respond:

- Functional Heads – also receives list of report of Corrected Findings
- Functional Directors
- Audit Committee
- Executive Management
- Board of Directors

After each of these groups has reviewed the reports and any necessary corrections to the database have been made, the final versions of the Outstanding Findings report, the Repeat Findings report, and, if necessary, the Closed Findings report should be produced for the management and issued.

Generally, the agenda for monthly meetings is finalized by considering issues arising out of Internal Audit Report. The Internal Audit Report needs to be discussed at monthly meeting and areas requiring attention are zeroed down. The functional Managers are assigned task arising out of this report, line of action is worked out and a senior manager is directed to supervise the task entrusted. When the task is complete and situation is brought under control or project is accomplished, final action taken report is submitted to monthly meeting and higher ups. The comment owner or designee should give written communication to the Internal Auditor, upon completion of corrective action in response to an internal audit finding. In the event corrective action has not been completed by the established target completion date, the comment owner should provide a written communication to the Internal Auditor on the status of corrective action, circumstances or reasons that have prevented the completion of corrective action, and specify a revised target date by which corrective action will be completed.

Management should complete corrective action measures in response to reported external audit findings in a timely and reasonable manner. The Internal Auditor is typically requested to act as the co-coordinator of remedial efforts between management and external auditors. In such a case, the comment owner or designee should give written communication to the Internal Auditor upon completion of corrective action in response to an external audit finding. In the event corrective action has not been completed by the established target completion date, the comment owner should provide a written communication to the Internal Auditor a progress report on the status of corrective action, circumstances or reasons that have prevented the completion of corrective action, and specify a revised target date by which corrective action will be completed.

Chapter 22- Checklist

Though there cannot be a general check list which is comprehensive for all the companies in the mining industry an attempt has been made to list some of the few points to keep in mind:

(i) It is incumbent upon the internal auditor to consider the effect of significant weaknesses in the systems under review and evaluate the possibility of material irregularity or non-compliance with the legislation and regulations at the time of undertaking the internal audit assignment.

(ii) Fundamental duty of the internal auditor is to ensure compliance of all laws – financial or non-financial. He is to ensure that the company has discharged all the statutory obligations, any directions given by the Government through pollution control board, environmental authorities like forest department etc.

(iii) In the mining industry, generally the life of the mine varies from 15 to 30/40 years and after the mine has exhausted its reserves, it is necessary for the company who has taken the land from the State Government on lease to put it in the same way as it was handed over to him. This put the company into more difficult situation particularly when the mine area has been leased out of the forest area in which the company is under an obligation to plant the saplings as were destroyed due the mining activity during the mining period. Mine closure is an important activity and should attract the attention of the management and strict compliance with the provision is required to be ensured by the Auditors.

(iv) Payment of all taxes is to be ensured by the internal auditors and should there be any lapse on the part of the management either in obtaining the registration from the concerned statutory authorities or delay in making payment of the taxes and filing of the returns should be brought to the notice of the higher management through the internal audit report and if any such lapse is noticed at a later date, internal auditor would be first found responsible for not pointing out the same.

(v) Wherever, there were any debatable points for the internal auditor, the auditor should not decide them unilaterally but on the other hand should put forth his observations on the issue and ask for the comments of the other side.

(vi) Generally mining industry will deploy lot of work force who are not always visible due to change of shifts and working at different places. There is general possibility of payment made to any ghost workers or maintaining fictitious assets and it is the diligence of the internal auditor which will bring out such instances to the notice of the higher management.

(vii) In a very large undertaking, sometimes activities will be undertaken and completed involving/exceeding financial limits also and such instructions, being oral, will not be reduced to writing for being verified at a later date by anybody. It is the duty of the internal auditor for insisting similar such instances for recording in writing and getting the approval of the competent authority.

(viii) As there are no exhaustive rules and check list to control the mining operational activity by an Internal Auditor any narration or cautions limits/narrows the vision and scope of the internal auditor, it may be noted that any guidance is only indicative and practical application and open mindset will direct for the better results.

Annexure: I

Guidelines for Mine Closure Plans

Preamble:

1. The Central Government vide Notification No. GSR 329 (E) dated 10.04.2003 and No. GSR 330 (E) dated 10.04.2003 amended the Mineral Concession Rules, 1960 and Mineral Conservation and Development Rules, 1988 respectively. As per these amendments all the existing mining lessees are required to submit the "Progressive Mine Closure Plan" along with prescribed financial sureties within 180 days from date of notification. Further, the mining lessee is required to submit "Final Mines Closure Plan" one year prior to the proposed closure of the mine. In the notification it has been enumerated that the "Progressive Closure Plan" and "Final Closure Plan" should be in the format and as per the guidelines issued by the Indian Bureau of Mines.

2. Mine closure encompasses rehabilitation process as an ongoing programme designed to restore physical, chemical and biological quality disturbed by the mining to a level acceptable to all concerned. It must aim at leaving the area in such a way that rehabilitation does not become a burden to the society after mining operation is over. It must also aim to create as self-sustained ecosystem.

3. Mine closure operation is a continuous series of activities starting from day one of the initiation of mining project. Therefore, progressive mine closure plan will be an additional chapter in the present mining plan and will be reviewed every five years in the Scheme of Mining. As progressive mine closure is a continuous series of activities, it is obvious that the proposals of scientific mining have had included most of the activities to be included in the progressive mine closure plan. Therefore, reference to relevant paragraphs and a gist of the same in progressive mine closure plan will be sufficient.

4. Final mine closure plan as per statute, shall be considered to have its approval at least nine months before the date of proposed closure of mine. This period of nine months is reckoned as preparatory period for final mine closure operations. Therefore, all proposals for activities which have to be carried out after production of mineral from the mine or mining is ceased, shall be included in the final mine closure plan. The final mine closure plan will thus be a separate document with detailed chapters as per guidelines given below.

The mine closure plan will be prepared as per the guidelines given as enclosure. The guidelines include the specific activities both in progressive mine closure plan and final mine closure plan.

ENCLOSURE

Guidelines for Mine Closure Plan

1. Introduction:

The name of the lessee, the location and extent of lease area, the type of lease area (forest, non-forest etc.), the present land use pattern, the method of mining and mineral processing operations, should be given.

1.1 Reasons for closure: The reasons for closure of mining operations in relation to exhaustion of mineral, lack of demand, uneconomic operations, natural calamity, directives from statutory organisation or court etc. should be specified.

1.2 Statutory obligations : The legal obligations, if any which the lessee is bound to implement like special conditions imposed while execution of lease deed, approval of mining plan, directives issued by the Indian Bureau of Mines, conditions imposed by the Ministry of Environment and Forests, State of Central Pollution Control Board or by any other organisation describing the nature of conditions and compliance position thereof should be indicated here (the copies of relevant documents may be attached as Annexure).

1.3 Closure plan preparation: The names and addresses of the applicant and recognised qualified person who prepared the Mine Closure Plan and the name of the existing agency should be furnished. A copy of the resolution of the Board of Directors or any other appropriate administrative authority as the case may be on the decision of closure of mine should be submitted.

2. Mine Description:

2.1 Geology: Briefly describe the topography and general geology indicating rock types available, the chemical constituents of the rocks / minerals including toxic elements if any, at the mine site.

2.2 Reserves: Indicate the mineral reserves available category wise in the lease area estimated in the last mining plan / mining scheme approved along with the balance mineral reserves at the proposed mine closure including its quality available (for final mine closure plan only).

2.3 Mining Method: Describe in brief the mining method followed to win the mineral, extent of mechanisation, mining machinery deployed, production level etc.

2.4 Mineral Beneficiation: Describe in brief the mineral beneficiation practice if any indicating the process description in short. Indicate discharge details of any tailings /middlings and their disposal/ utilisation practice followed.

3. Review of Implementation of Mining Plan /Scheme of Mining including five years Progressive Closure Plan upto final closure of mine:

Indicate in detail the various proposals committed with special emphasis on the proposals for protection of environment in the approved Mining Plan /Scheme of Mining including five years Progressive Closure Plan upto the closure of mine vis-a-vis their status of implementation. Highlight the areas, which might have been contaminated by mining activities and type of contaminants that might be found there. The reasons for deviation from the proposals if any with corrective measures taken should also be given.

4. Closure Plan:

4.1 Mined-Out Land: Describe the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use. The proposals should be supported with relevant plans and sections depicting the method of land restoration / reclamation / rehabilitation.

4.2 Water Quality Management: Describe in detail the existing surface and ground water bodies available in the lease areas and the measures to be taken for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water courses , if any, measures for protection of contamination of ground water from leaching etc. Quantity and quality of surface water bodies should also be indicated and corrective measures proposed to meet the water quality conforming the permissible limits should also be described. Report of hydrological study carried out in the area may also be submitted. The water balance chart should be given. If there is potential of Acid Mine Drainage the treatment method should be given.

4.3 Air Quality Management: Describe the existing air quality status. The corrective measures to be taken for prevention of pollution of air should be described.

4.4 Waste Management: Describe the type, quality and quantity of overburden, mineral reject etc. available and their disposal practice. If no utilisation of waste material is proposed, the manner in which the waste material will be stabilized should be described. The protective measures to be taken for prevention of siltation, erosion and dust generation from these waste materials should also be described. If toxic and hazardous elements are present in the waste material the protective measures to be taken for prevention of their dispersal in the air environment, leaching in the surface and ground water etc., should be described.

4.5 Top Soil Management: The top soil available at the site and its utilisation should be described.

4.6 Tailing Dam Management: The steps to be taken for protection and stability of tailing dam, stabilisation of tailing material and its utilisation, periodic desilting, measures to prevent water pollution from tailings etc., arrangement for surplus water overflow alongwith detail design, structural stability studies, the embankment seepage loss into the receiving environment and ground water contaminant if any should be given.

4.7 Infrastructure: The existing infrastructural facilities available such as roads, aerial ropeways, conveyer belts, railways, power lines, buildings & structures, water treatment plant, transport, water supply sources in the area etc. and their future utilisation should be evaluated on case to case basis. If retained, the measures to be taken for their physical stability and maintenance should be described. If decommissioning proposed, dismantling and disposal of building structures, support facilities and other infrastructure like electric transmission line, water line, gas pipeline, water works, sewer line, telephone cables, underground tanks, transportation infrastructure like roads, rails, bridges, culverts etc., electrical equipment and infrastructures like electric cables, transformers to be described in connection with restoring land for further use.

4.8 Disposal of Mining Machinery: The decommissioning of mining machineries and their possible post mining utilisation, if any, to be described.

4.9 Safety and Security: Explain the safety measures implemented to prevent access to surface openings, excavations etc., and arrangements proposed during the mine abandonment plan and upto the site being opened for general public should be described.

4.10 Disaster Management and Risk Assessment : This should deal with action plan for high risk accidents like landslides, subsidence flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authority should also be described.

4.11 Care and maintenance during temporary discontinuance: For every five yearly review (as given in the mining scheme), an emergency plan for the situation of temporary discontinuance or incomplete programme due to court order or due to statutory requirements or any other unforeseen circumstances, should include a plan indicating measures of care, maintenance and monitoring of status of unplanned discontinued mining operations expected to re-open in near future. This should detail item wise status monitoring and maintenance with periodicity and objective.

5. Economic Repercussions of closure of mine and manpower retrenchments:

Manpower retrenchment, compensation to be given, socio-economic repercussions and remedial measures consequent to the closure of mines should be described, specifically stating the following.

5.1 Number of local residents employed in the mine, status of the continuation of family occupation and scope of joining the occupation back.

5.2 Compensation given or to be given to the employees connecting with sustenance of himself and their family members.

5.3 Satellite occupations connected to the mining industry - number of persons engaged therein - continuance of such business after mine closes.

5.4 Continued engagement of employees in the rehabilitated status of mining lease area and any other remnant activities.

5.5 Envisaged repercussions on the expectation of the society around due to closure of mine.

6. Time Scheduling for abandonment: The details of time schedule of all abandonment operations as proposed in para 4 should be described here. The manpower and other resources required for completion of proposed job should be described. The schedule of such operations should also be supplemented by PERT (Programme Evaluation & Review Technique), Bar Chart etc.

7. Abandonment Cost: Cost to be estimated based on the activities required for implementing the protective and rehabilitation measures including their maintenance and monitoring programme.

8. Financial Assurance: The financial assurance can be submitted in different forms as stated in Rule 23(F)(2) of Mineral Conservation and Development (amendment) Rules, 2003. In the mine closure plan, the manner in which financial assurance has been submitted and its particulars have to be indicated. For Model Bank Guarantee Form, please click here.

9. Certificate: The above mentioned actions have been taken to be stated clearly in the mine closure plan. A certificate duly signed by the lessee to the effect that said closure plan complies all statutory rules, regulations, orders made by the Central or State Government, statutory organisations, court etc. have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities. The lessee should also give an undertaking to the effect that all the measures proposed in this closure plan will be implemented in a time bound manner as proposed.

10. Plans, Sections etc.: The chapter 1,2,3 and 4 should be supported with Plans and Sections. The

Closure Plan may also be submitted depicting photographs, satellite images on compact disc etc. wherever possible.

NOTE

1. The mine closure plan in progressive stage will be prepared by paragraphs where sub-paragraphs may be added for detailed items whereas the final mine closure plan will be prepared in chapters with sub-chapters as necessary with adequate details.
2. The guidelines for the both the documents will be same as above.

http://ibm.nic.in/mineclosuregl.htm

Annexure: II

Extract of Section 64D of Mines and Minerals (Development and Regulation) Act 1957

"64 D. Manner of Payment of Royalty on Minerals on Ad Valorem Basis

Every mine owner, his agent, manager, employee, contractor or sub-lessee shall compute the amount of royalty on minerals where such royalty is charged on ad valorem basis as follows:

"for all non-atomic and non-fuel minerals sold in the domestic market or consumed in captive plants or exported by the mine owners (other than bauxite and laterite dispatched for use in alumina and metallurgical industries, copper, lead, zinc, tin, nickel, gold, silver and minerals specified under Atomic Energy Act), the State- wise sale prices for different minerals as published by Indian Bureau of Mines shall be the sale price for computation of royalty in respect of any mineral produced any time during a month in any mine in that State, and the royalty shall be computed as per the formula given below:

Royalty = Sale price of mineral (grade-wise and State-wise) published by IBM X Rate of royalty (in percentage) X Total quantity of mineral grade produced/ dispatched:

Provided that if for a particular mineral, the information for a State for a particular month is not published by the Indian Bureau of Mines, the latest information available for that mineral in the State shall be referred, failing which the latest information from All India figures of price for the mineral shall be referred.

for the grades of minerals produced for captive consumption (other than bauxite and laterite dispatched for use in alumina and metallurgical industries, copper, lead, zinc, tin, nickel, gold and silver) and those not dispatched for sale in domestic market or export, the sale price published by the Indian Bureau of Mines shall be used as the bench mark price for computation of royalty.

for primary gold, silver, copper, nickel, tin, lead and zinc, the total contained metal in the ore or concentrate produced during the period for which the royalty is computed and reported in the statutory monthly returns under Mineral Conservation and Development Rules, 1988 or recorded in the books of the mine owners shall be considered for the purposes of computing the royalty in the first place and then the royalty shall be computed as the percentage of the average metal prices published by the Indian Bureau of Mines for primary gold, silver, copper, nickel, tin, lead and zinc during the period of computation of royalty as follows:

> *Royalty = sale price X rate of royalty in percentage*
> *where sale price = Average price of metal as published by Indian Bureau of Mines during the month X Total contained metal in ore or concentrate produced X Rupee or Dollar exchange rate selling as on the last date of the month of computation of royalty:*

Provided that in case of by-product gold and silver the royalty shall be based on the total quantity of metal produced and such royalty shall be calculated as follows:

Royalty = Sale price X rate of royalty in percentage

Explanation - For the purpose of this sub-clause sale price means, average price of metal as published by Indian Bureau of Mines during the month X Total by-product metal actually produced X Rupee or Dollar Exchange rate selling as on the last date of the month of computation of royalty."

(i) For bauxite or laterite ore dispatched for use in alumina and aluminium metal extraction or dispatched to alumina or aluminium metal extraction industry within India, the total contained alumina in the bauxite or latrite ore on dry basis produced during the period for which the royalty is computed and reported in the statutory monthly returns under Mineral Conservation and Development Rules, 1988 or recorded in the books of the mine owners shall be considered for the purpose of computing the royalty in the first place and then the royalty shall be computed as the percentage of the average monthly price for the contained aluminium metal in the said alumina content of the ore published by the Indian Bureau of Mines, on the following basis, namely :-

Royalty =

$\frac{52.9}{100}$	X	Percentage of Al_2O_3 in the bauxite on dry basis (as reported in the Statutory Monthly return under MCDR)	X	Average monthly price of aluminium as published by the IBM	X	Rupee/ dollar exchange rate (selling) as on the last date of the period of the computation of royalty	X	Rate of royalty (in percentage)

Provided that for computing the royalty for bauxite or laterite dispatched for end use other than alumina and aluminium metal extraction and for exports provisions of this clause shall not apply.

(ii) In case of metallic ores based on metal contained in ore and metal prices based on benchmark prices, the royalty shall be charged on dry basis, and the mine owner shall establish suitable facilities for collection of sample and its analysis on dry basis at the mine site."

Further in view to simplifying the manner of computing ad valorem royalty in Rule 64 D under MCR, 1960, the following directives have been issued by Ministry of Mines vide F.No.16/90/2009 MVI dt. 10.12.2009.

(a) in the case of minerals for which benchmark prices are not available, the sale price of minerals calculated from the weighed average price per tonne of Pit Mouth Value (PMV) of the mineral/ore as reported by the top ten non-captive producers or actual number of non-captive producers, whichever is less, in monthly returns under Mineral Conservation and Development Rules, 1988, excluding minerals produced for capital consumption;

(b) in the case of such minerals for which benchmark prices are available for the metal contained in the ore/concentrate, the average monthly price for metal calculated on the basis of the London Metal Exchange prices in case of aluminium, copper, lead, zinc, nickel, silver and tin, and the London Bullion Market Association Price (also known as London Price) in case of gold, as published in either of the following three sources, in the following order of priority;

Non-ferrous Report: Mineral and Metals Review, 28,30 Anantwadi, P.O.Box. 2749, Mumbai - 400 002 Metal Bulletin: 16, Lower Marsh, London, SE-17, RJ

World Metal Statistics: (Monthly or quarterly Summary) By World Bureau of Metal Statistics, 27a

High Street, Ware, Herts SG 129 BA, United Kingdom;

(c) The IBM shall use the selling rate of foreign exchange on the last date of the month as published in newspaper namely, 'The Economic Times', for conversion of rupee;

(d) The IBM shall set up a Monitoring Committee to monitor the accuracy of reporting of the gradewise production, pit mouth value (PMV) and sale value of minerals by the lessee in the monthly and annual returns as required under Mineral Conservation and Development Rules, 1988 with the following functions:

(i) The Monitoring Committee shall quarterly review the reports (state-wise), preferably in the second week in the months of September, December, March and June for the first, second, third and fourth quarters respectively, of every financial year as per schedule given below:

Sl. No.	Quarter	Review month
1.	April to June	September
2.	July to September	December
3.	October to December	March
4.	January to March and Annual	June

(ii) In particular, the Monitoring Committee may:

(a) monitor delays in the receipt of information in the monthly returns as required under Mineral Conservation and Development Rules, 1988, from selected mines for any particular grade of a mineral.

(b) identify and conduct statistical cum mining audit of returns filed by selected mines under Mineral Conservation and Development Rules, 1988.

(c) obtain information from the State Governments on consumption prices (domestic), FOB prices, grade-wise exports and average deduction rates (transportation charges, port handling, etc.) for mining clusters in different regions of the state and conduct sample check on the information furnished in the monthly and annual returns submitted under Mineral Conservation and Development Rules, 1988.

(d) any other matter Controller General may specify in this regard.