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Manual of Commercial Audit

Third Edition (2019)

**OFFICE OF THE PRINCIPAL DIRECTOR OF
COMMERCIAL AUDIT & ex-OFFICIO MEMBR,
AUDIT BOARD-II, MUMBAI 400 001**

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CHAPTER-I
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A. Types of Audit Conducted:

The audit is taken up as per the approved Audit Plan which includes (i) Compliance Audit including IT Audit, Thematic Audit, (ii) Performance Audit and (iii) Certification Audit/Accounts Audit. In the following paras a short brief on Compliance audit and Performance audit has been given.

1. Compliance Audit:

Compliance Audit addressed as transaction audits are regulated by the Compliance Auditing Guidelines of C&AG of India, February, 2016. The compliance audits are planned based on the risk based selection of audit units. The audit universe should be classified into three categories viz Apex Auditable Entities, Apex Audit Units and Implementing Units for planning and conducting compliance audits. Organizational hierarchies below each Apex auditable entity have to be defined as Audit Units if they satisfy any of the broad attributes i.e substantial delegation of powers, functional autonomy and operational significance. Implementing units are the lower most layer of organizational structure that do not satisfy any attributes for classifying them as Audit Units. Annual Compliance Audit Plan would have to be prepared based on risk profiling of the Apex Auditable Entities and Audit units. Compliance Audits would cover both regularity and proprietary audit. Audit against propriety of the auditable entity would be carried out in the normal course. Efforts should be concentrated on audit of high risk units in the first and second quarter annual audit cycles so that current transactions are covered in audit.

In the case of evaluating regularity, if the audit involves complexity or multifarious activities a specific subject matter may be selected for evaluating regularity (Thematic Audit). In such audit, audit objectives and scope of audit have to be determined for audit and evidence gathering and evaluation process is to be adequately documented. An audit design matrix and audit findings matrix have to be prepared. Statistical sampling may be adopted for selection of transactions which would enhance the level of verifiable audit assurance. In case of large entities, it is necessary to constitute multiple teams for audit. In such cases, the lead team constituted from amongst the audit teams is entrusted with the responsibility of leading the team. The lead team is required to provide guidance, liaison support to the other teams throughout the audit process and also consolidate the audit findings of all other audit teams to achieve a holistic analysis and a reasoned conclusion.

The conduct of audit starts after the finalization of audit strategy and audit plan. Intimation to the identified auditable entity executive and all other audit units heads of which audit is proposed to be taken up is to be given. The intimation should include the subject matters that have been selected for audit, scope of audit, audit objectives, audit criteria that would be used to evaluate the subject matters, audit units/implementing sample design. The intimation should indicate the composition of audit team(s), duration and schedule of audit and should solicit the requirements and seek co-operation of the executive for the smooth conduct of audit.

(a) Scrutiny of Contracts forming part of Compliance audit

Scrutiny of contracts or agreements constitutes one of the important functions of Compliance audit. The objective of such a scrutiny is to see whether the contracts or agreements have led to loss or wastage of public money and also to ensure that the rules and regulations provide reasonable security against malpractices.

The main source documents to be checked in the audit of contracts and agreements:

- i. Contract files maintained by the departments or institutions.
- ii. Accounts and payment vouchers.
- iii. Administrative Approvals and Technical Sanctions of the competent authority forming the basis of the contracts.
- iv. Copies of Contracts and Agreements.
- v. Any other documents that would facilitate effective audit.

During compliance audit, the scrutiny of contracts should be based on Audit Design Matrix for Audit of Contracts (ADMAC) checklist on audit of contracts circulated by Headquarters office to all field

offices vide their letter no 138- CA-IV/02-2015/Contract Mgmt. dated 12.06.2015 for ensuring contracts were awarded at the most competitive prices, following transparent process, providing equitable opportunity to all prospective parties. The inspection team has to fill in the requisite formats as per the circular giving detailed evidence of contract audit performed.

In conducting audit of contracts 'Audit of Expenditure' should be borne in mind and the original records leading to the issue of the sanction should be scrutinized.

(b) Classification of Contracts (Upstream Sector)

The major contracts for services and purchases in ONGC can be broadly classified into following categories: -

1. High value contracts such as contracts of turnkey nature for establishment of major capital facilities.
2. Contracts for services and charter hire such as contracts for logging services, hire of rigs, cementing services, maintenance and operations of OSVS, etc.
3. Supply orders for procurement of equipment/materials of capital/revenue nature.
4. Other Miscellaneous contracts (transport contracts, maintenance contracts).

There is a laid down purchase procedure in ONGC which is updated from time to time. No expenditure can be incurred unless there is a proper 'sanction order.' For certain bulk quantity purchases, procurement is centralized at Headquarters at Delhi. Purchases/contracting are made in ONGC through the following sources: -

- i) Open tenders (Including International Competitive Bidding)
- ii) Limited tenders
- iii) Single tenders
- iv) Hand quotations for petty orders not costing more than ₹ 10000
- v) Annual Rate contract
- vi) Board of officers

There is a scheme of price preference for domestic bidders over imported stores against international competitive bidding. There are separate notifications by the customs department in the matter of customs duties for supplies for ONGC.

(c) Audit Evidence:

Documentation is very important as it confirms and supports the opinion and the report, serve as a source of information for preparing reports, for answering any enquiries from the auditable entity or from other audit team, serves as evidence of the auditor's compliance with Auditing Standards, facilitates the planning and supervision and for future references. Documentation must be for the entire audit process. Documentation should be retained for a period sufficient to meet the professional, legislative and legal requirements. Documentation can be bifurcated into two parts.

Audit file and Working papers. Audit file will contain documents that relates to audit process and working papers will contain the documents collected during the audit process.

Documentation is a critical process in this office as the major auditee organization of this office of the Upstream Company i.e ONGC has adopted paperless project Disha –Go across entire Organization on 05.02.2018 with integration of ICE system.

The working papers should be complete and accurate to support audit conclusions. Documentation should facilitate the understanding of the entire process. The documentation should be legible and neat. Only relevant papers important and pertinent should be kept as working papers. The working papers must be organized and referenced.

The working papers on record must be cross referenced to audit memoranda, discussion papers, audit observations, field audit report and the compliance audit report as the case may be to enable PDCA/Group Officers and supervisory officers to link the working papers to audit findings and conclusions. Working papers should also provide a complete trail of the audit procedures performed, evidence that were gathered and evaluated, audit findings and conclusions that were drawn. This should contain evidence for positive findings as well.

Good communication with the auditable entity throughout the audit process will help make the process more effective and constructive. Communication should be at various levels and at various stages – (i) during initial planning of the audit strategy, suitable audit criteria and other elements of planning should be discussed with the appropriate level of management, (ii) during conduct of audit and reporting to make enquiries of relevant persons, communicate any significant difficulties being encountered in audit and significant instances of non-compliance to the appropriate level of management entry meeting(s) with the heads of audit units before the commencement of audit. the audit team should explain the purpose, objectives of audit, timelines and cooperation expected from the head of the audit unit. Similarly, at the close of audit, the audit team leader or the Group officer in charge should also hold an exit meeting with the officer in charge of the audit unit to discuss the audit findings and request responses. The minutes of the exit meeting should be prepared and shared with the audit unit and acknowledgement requested.

Draft Inspection Reports in respect of high risk units should be submitted by field audit parties within 7 days from the date of completion of the audit of respective audited entity. Final Inspection Reports should strictly be issued by field Audit Offices within 30 days from the date of completion of the audit of the entity.

2. Performance Audit

Performance auditing is an independent, objective and reliable examination of whether the principles of economy, efficiency & effectiveness have been followed and whether there is room for improvement. Performance auditing provide new information, analysis, insights and also recommendations for improvement based on an analysis of audit findings. Performance audit is not checking the books to attest their correctness but it seeks to establish at what cost and to what degree the policies, programmes and projects are working. Performance audit analyses whether right things are being done in right way.

Performance auditing guidelines of C&AG of India, 2014 provide the best practices that the officers and the staff of Department must follow in planning, implementation, reporting, observing follow-up processes and obtaining quality assurance in performance audits. They outline principles, objectives, approach, methodology, techniques and procedures for conducting performance audits. These guidelines are based on the existing guidelines of C&AG of India and International Standards of Supreme Audit Institutions- (ISSAI) 100, 300 and 3000 and ASOSAI Performance Auditing Guidelines. These Guidelines contain comprehensive implementation instructions and replace the Performance Auditing Guidelines, 2004. While these guidelines are prescriptive in nature, these are not intended to supercede the professional judgment of the Head of the Department, relevant to the individual sectors of entity operations and within each sector, to the individual subjects. This is intended to make situation or subject specific adjustments to the provisions set out in these guidelines. However, the rationale of all significant departures from the guidelines should be documented and obtain authorization from the competent authority.

Objective of the Performance audit should be set clearly relating to the principles of economy, efficiency and effectiveness. Audit approach may be on the following lines.

1. System oriented i.e on functioning of the management systems,
2. Result oriented i.e. whether intended objectives have been achieved
3. Problem oriented i.e examination of deviations from criteria and its causes

Suitable audit criteria should be evaluated for assessing, developing audit findings and reaching audit conclusions on the audit objectives. It should be transparent and the criteria should be relevant, reliable, objective in the subject matter and understandable for users. It is crucial to select reliable and objective criteria. The criteria can be discussed with the audited entity. The complex issues not be covered in the criteria may be defined during the audit process. Audit risk must be managed actively. Performance audit topics are complex and can be politically sensitive. Audit planning documents should show how these risks will be handled. To bring out a balanced report proper communication channel with the audited entities and other parties must be established. Communication must be throughout the audit process on different findings, feedback should be recorded in the working papers. Disagreements should be analyzed and reasons for not making changes must be documented. It must be ensured that communication with audited entities does not compromise the independence and impartiality of the Department.

In conformity with the audit objective and audit criteria a comprehensive and detailed questions may be developed. Audit team should also prepare Audit Design Matrix (ADM) for a focused approach. As ADM are prepared at the planning phase, the same can be updated after acquiring in depth knowledge of the audit subject matter. A well designed ADM leads to efficient planning and effective audit providing highest assurance. The Minutes of the entry conference held with the Chief of the Auditee entity by the Principal Director may be shared with the audit entity and acknowledgement may be obtained. The engagement letter may be sent to the Chief of the entity communicating the audit and details of units selected, timeframe for audit and communicating the expectations. Entry meeting and exit meeting may also be held by the audit before commencement of the audit. The minutes of such meeting should be prepared and shared with audited entity and acknowledgement requested.

Report must be supported with documentation for the evidence of audit conclusions and to prove that the audit was carried out in accordance with the relevant standards. Working papers should be bifurcated into three planning, execution and reporting. Confidentiality should be maintained. Audit Observations may be supported with Audit Findings Matrix for cross reference that the work has been completed in consonance with ADM. The exit conference may be held after the report has been issued to all findings and recommendations. The minutes should be recorded and endorsed to the entity with a request to acknowledge the minutes within two weeks, it must be stated that if no acknowledgement is received it will be presumed that audited entity concurs with the minutes.

In order to ensure the timely completion of the performance audits and also that the topics may not lose their importance, all the performance Audits should ideally be completed within a period of ten months. The audit implementation cycle i.e from the date of entry conference to the finalization of the audit report by the headquarters should be completed preferably within this period. However, some additional time may be required for the complex All India performance audits or performance audits undertaken with the help of outside experts.

The audit report should be complete i.e. all pertinent information required to satisfy the audit objective, including the information relating to the scope, criteria, evidence, conclusions and recommendations should be available in the report; The audit report should ensure fair conclusions and balanced content and tone. Report should not focus only on criticism but must contain fair assessment or evaluation. The audit report must be presented convincingly with conclusions and recommendations for the facts presented; the report should be easy to read and understand; it should be concise, precise to convey the audit opinion and conclusions; it must not contain contradictory findings or conclusions in similar contexts or the conclusions on the same segment in different sections or parts of the report; The report must be constructive with a remedial approach rather than a critical approach with appropriate recommendations and the report must be timely. “Style Guide” prepared by Hqrs and circulated in August’2003 may be referred.

(a) Structure of the Performance Audit Report:

The performance audit report should preferably be presented as per the following structure:

1. Title: the subject of the performance audit;
2. Executive summary: It provides the précis of the main report. The summary should not be very long and should contain only essential information. The major audit findings should be placed in the same sequence as the audit objectives and sub-objectives along with recommendations in brief;
3. Introduction: It consists of a brief description of the subject of study, information on programme, activity, or institution, its objectives, inputs, implementation structure, expected outputs and outcome, *etc.* The introduction should be brief, yet sufficient to enable the reader understand the context of the programme;
4. Audit objectives: They are the pivots of the performance audit, which set out the reason for undertaking the audit. The entire exercise of performance audit is built around the audit objectives. These should, therefore, be stated in simple and clear terms. It is useful to set out the audit

objectives and sub-objectives within each audit objective in the form of complete statement/question;

5. Scope of audit: It is defined in terms of the period of the programme covered in audit and segments of the programme audited should be set out precisely;
6. Audit methodology: It describes methods used for data collection/evidence gathering and testing may be stated in brief. This adds to the acceptability of the audit findings and forms a statement for transparency of the audit procedure;
7. Audit criteria: to arrive at the audit findings and conclusions with reference to each audit objective and sub-objective which should be stated with appropriate explanations; Audit findings and conclusions made during an audit with reference to each objective should be stated;
8. Recommendations: They should be presented along with the conclusions wherever applicable in a box or highlighted print;
9. Acknowledgement: it may be useful to indicate or acknowledge in brief the co-operation, acceptance of the criteria/findings and recommendations by the entity. In case the co-operation or response was not forthcoming at any stage it may be indicated if it has resulted in any limitation along with its implication and the special efforts made by the Accountant General to seek cooperation or response;
10. Glossary of terms: It is helpful to the reader if explanations are provided in a glossary or easy-to-find footnotes. Glossary should be comprehensive, explaining all technical and uncommon terms used in the report.

(b) Follow up of Performance Audit Reports:

Performance audit reports are essentially a means to improving public sector performance and accountability. This can be achieved through implementation of the recommendations contained in the performance audits. Consistent and systematic follow-up process in the Department may contribute significantly to the effectiveness of performance audit in improving the programme management.

The performance audits are selected by the Committees of the Parliament for detailed examination and oral evidence is pursued in the context of the decisions of the respective Committees, if any recommendations have been issued. The recommendations of the Committees of the Parliament not only support but also strengthen the recommendations by audit. However, even in cases selected by the Committees where the examination and issue of recommendations by the committees of the Parliament have not taken place, PDCA may continue to pursue the follow-up on recommendations as in the cases where the subject is not selected for detailed examination;

As per the extant procedure, in case of the reports on the Union Government, the ministries and departments forward the 'Action Taken Note'(ATN) against all matters included in the report of the Comptroller and Auditor General to the Parliamentary Committees within the prescribed time. The ATN is vetted for correctness of facts and figures, adequacy of the remedial measures and explanations for underperformance before they are submitted to the Committees of the Parliament. The ministries and departments submit the ATNs after attending to the comments of PDCA. In exceptional cases, they may include the vetting comments of Audit along with a response to the comments before submission of the ATNs to the Committee. In vetting the ATNs, the substantive action on the recommendations, rather than the form, is the focal point. While no uniform model can be suggested for securing the implementation of the recommendations and the procedure outlined above may be one of the models, the ultimate objective should be to ensure prompt and effective implementation of the recommendations.

(c) Public Accounts Committee (PAC)

The Public Accounts Committee (PAC) is a committee of selected members of Parliament, constituted by the Parliament of India, for the auditing of the revenue and the expenditure of the Government of India. The PAC is formed every year with a strength of not more than 22 members of which 15 are from Lok Sabha, the lower house of the Parliament, and 7 from Rajya Sabha, the upper house

of the Parliament. The term of office of the members is one year. The Chairman is appointed by the Speaker of Lok Sabha. Since 1967, the chairman of the committee is selected from the opposition. Earlier, it was headed by a member of the ruling party. Its chief function is to examine the audit report of Comptroller and Auditor General of India (CAG) after it is laid in the Parliament. CAG assists the committee during the course of investigation. None of the 22 members shall be a minister in the government. The functions of the Committee are laid down under Rules 308 (2) Rules of Procedure and Conduct of Business in Lok Sabha.

The current PAC is headed by Chairman Shri Adhir Ranjan Chowdhury since July 2019 Congress MP of Behrampore, West Bengal.

3. CERTIFICATION OF ACCOUNTS /SUPPLEMENTARY ACCOUNTS AUDIT:

(a) Audit methodology

Audit of financial statements which was conducted in three phases since 2008-09 accounts as per the Hqrs circular/guidance note has been discontinued with effect from 20.09.2019 in all CPSEs except in case of Statutory Corporations where CAG is the sole Auditor.

The following aspects could be covered in the accounts audit:

- (i) Audit team should acquire sufficient knowledge of the CPSE's business risks to enable them to identify the events, transactions and practices that would have significant impact on financial reporting.
- (ii) Risk Register would be useful for each major CPSEs
- (iii) Understanding of the accounting system, including IT system, of the PSU;
- (iv) IT audit expertise while conducting supplementary audit would reveal flaws in the reporting process.
- (v) In the Computerized environment it is essential to have proper documentation of the audit procedure and processes undertaken in audit and data examined
- (vi) Total number of accounts codes available, number of new accounts codes introduced, instructions issued during the year for change in accounting transactions from one accounting code to another, justification for change and system of monitoring needs to be verified.
- (vii) A proper risk assessment, including review of internal control system in the PSU, may be conducted;
- (viii) Analysis of accounting policies, notes to accounts, Compliance with the financial reporting requirements of the relevant laws, rules and regulations, accounting standards etc.
- (ix) An effort may be made to bring consistency in the accounting policies of the companies in the same sector;
- (x) Verification of action taken on earlier audit observations; Compliance with the previous year's assurances given by the Management and issues raised in the 'Management letters'
- (xi) Modifications in the opening balances, if any, or rectification of errors done by the company may also be reviewed to evaluate the efficacy of the internal control system;
- (xii) Based on the above (items i to vii), quantum of checks to be exercised and department/units to be visited, scope and coverage may be decided.
- (xiii) Issues of principle, accounting policies, accounting standards, opinions of the Expert Advisory Committee of ICAI may be discussed with the Management. Proposed changes in the accounting policies and Notes to Accounts may also be discussed;
- (xiv) Compliance to sub-directions under Section 619(3)(a) of the Companies Act 1956. The performance assessment of auditors may be made as per the parameters prescribed by Hqrs and failure of the auditors in any one of the parameters should be interpreted as serious lapse and the auditors performance may be adjudged as unsatisfactory.

- (xv) Review of system of verification of inventories, cash and bank balances including fixed deposits, Investments and other items to be finalised at year end and system of confirmation of balances of debtors, creditors, loans and advances, etc.;
- (xvi) Any deviation in the instructions from the accounting policies, accounting standards etc.;; Compliance with the consolidation/grouping instructions
- (xvii) Examination of the Report of the statutory auditors especially the qualifications, opinions and compliance with relevant Auditing and Assurance Standards;
- (xviii) It may be seen during accounts audit that the CPSEs have laid down transparent accounting policies for making provisions for old doubtful debts and loans and advances after taking into account the age of the debt;
- (xix) Accuracy of Accounting Estimates and actuarial valuation to be examined. Some of the areas of accounting estimates are Fair valuation of complex financial instruments not traded in active and open market, provision against carrying amount of investments where there is uncertainty regarding recovery investment in the non performing or loss making JVs/Subsidiaries/associates; Warranty obligations; provision for loss making contracts; cost of long term contract in proportion to its completion; etc.
- (xx) Capitalisation of Capital work in progress;
- (xxi) Accounting of capital expenditure as revenue expenditure
- (xxii) Balance lying in suspense, unreconciled under inter unit balances;
- (xxiii) Accounting of foreign exchange transaction; adoption of foreign exchange rate,etc
- (xxiv) Title deeds of land
- (xxv) If income from the core activity of the CPSE's is less than its other income the same may be examined and reported.

(b) OIL & GAS SIGNIFICANT ACCOUNTING ISSUES:

Upstream activities:

Reserves and Resources
 Depletion and depreciation of upstream assets
 Exploration and evaluation
 Development expenditure
 Borrowing costs
 Revenue recognition
 Disclosure of reserves and resources
 Production sharing agreements and concessions

Note formulated in accordance with Ind AS by Research Committee of ICAI in December, 2016 to deal with the accounting of upstream oil and gas operations viz., acquisition, exploration, development and production activities may be referred for guidance.

It is a comprehensive guidance for all the four phases of the upstream oil and gas operations also termed as the Exploration and Production (E&P) industry providing guidance in accordance with the principles contained in Ind AS.

1. It includes guidance on what constitute oil and gas assets for the purpose of applying unit of production (UOP) method, accounting for abandonment costs in accordance with principles laid down in Ind AS 37, *provisions, Contingent Liabilities and Contingent Assets. Unit of Production (UOP) method*: The method of depreciation (depletion) under which depreciation (depletion) is calculated on the basis of the number of production or similar units expected to be obtained from the asset by the entity.
2. The guidance on testing for impairment of exploration and evaluation assets is provided in accordance with the principles laid down in Ind AS 106 while that for development and production assets is in accordance with Ind AS 36, *Impairment of Assets*.
3. It also includes guidance on accounting for interests in joint ventures in accordance with Ind AS 111, *Joint Arrangements*, since many entities engaged in upstream oil and gas operations enter into joint venture agreements.

4. Further, E & P entities often undertake transactions in different currencies and accordingly, guidance for determination of functional currency in accordance with the principles laid down in Ind AS 21, *The Effects of Changes in Foreign Exchange Rates* is also contained in the Guidance Note.
5. It also includes guidance on presentation and certain additional disclosures to be made by an upstream oil and gas entity. This Guidance Note comes into effect in respect of accounting periods commencing on or after 1 April 2017.
6. Considering the peculiar nature of E&P industry, Indian Accounting Standard (Ind AS) 16, *Property, Plant and Equipment*, and Ind AS 38, *Intangible Assets*, do not apply to recognition and measurement of exploration and evaluation assets [para 3(c) of Ind AS 16 and para 2 (c) of Ind AS 38 respectively]. Ind AS 106, *Exploration for and Evaluation of Mineral Resources*, applies to such assets.
7. The objective of this Guidance Note is to provide guidance on the accounting principles contained in Ind ASs to accounting for costs incurred on activities relating to acquisition of interests in properties, exploration, development and production of oil and gas.
8. This Guidance Note applies to costs incurred on acquisition of mineral interests in properties, exploration, development and production of oil and gas activities, i.e., upstream operations.
9. This Guidance Note also deals with other accounting aspects such as accounting for abandonment costs and impairment of assets that are peculiar to the entities carrying on oil and gas producing activities.
10. As per the Guidance note, besides the disclosures required by applicable Ind ASs and statutes, an E&P entity should also disclose the following in its financial statements:

- (i) The accounting policies followed.
- (ii) Net quantities of an entity's interests in proved reserves and proved developed reserves of (a) oil (including condensate and natural gas liquids) and (b) gas, as at the beginning and additions, deductions, production and closing balance.
- (iii) Net quantities of an entity's interest in proved reserves and proved developed reserves of (a) oil and (b) gas on the geographical basis.
- (iv) The reporting of reserve quantities should be stated in metric tonnes for oil reserves and cubic meters for gas reserves.
- (v) Description and net quantities of an entity's interest in reserves used as a basis for impairment assessment, if applicable.
- (vi) Basis of determination of cash generating unit used for impairment assessment purposes.
- (vii) Frequency of reserve evaluation, principal assumptions used and involvement of any external expert(s), if used.
- (viii) Exploration cost written-off during the period.

(c) Indian Accounting Standards and Significant Accounting Policies

In accordance with the notification dated 16th February 2015, issued by the Ministry of Corporate Affairs (MCA), ONGC has adopted Indian Accounting Standards notified under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) with effect from April 1, 2016.

In order to comply with requirement, set out under Indian Accounting Standards (Ind AS), the accounting policies used under Previous GAAP had been modified and certain new policies had been created for preparation of Accounts for the year 2016-17.

(d) Risk Assessment-Internal controls and Compliance thereof

Posting and processing: General Ledger, Sub-Ledger accounts and transitory heads

Accounting entries in General Ledger are generated by the System as per mapping of GL accounts configured in the System on postings in respective business modules. Simultaneous to postings in General Ledger, System based entries are also made in the sub ledger such as vendor accounts.

Precautions in preparation of Financials in BI

Details of precautions exercised by ONGC during the preparation of financial statements in BI modules are discussed below:

Managing authorizations in BI

It is absolutely necessary to maintain confidentiality of financial results of the Company till these are published. Therefore, the authorizations have been given to relevant users of Central Accounts for their Company code only. However, authorizations as a whole are available with Corporate Accounts users, relevant ICE BI/FI team members, Statutory Auditors of Company. It is important to manage authorizations to users on a regular basis based upon requirements from time to time. Therefore, Corporate Accounts decide for any addition/deletion of authorization to finance executives based upon the requirement.

Regular updating of data in BI to ensure that no differences exist with SAP

The process of updating of data in BI from SAP takes minimum 4 hours, it becomes imperative to ensure that financials taken from BI for publication represents figures of SAP. Units ensure this for their company codes before getting financials signed through Statutory Auditors. The same is also simultaneously ensured at the corporate level before publication.

Updating of Company codes/profit centres

In order to correctly draw financials for Company as a whole from BI, it is necessary to ensure that data for all company codes and profit centres flow to the BI. Therefore, if there is any addition to company codes or profit centres, the same should be immediately updated in BI. For this a separate check list is maintained at the corporate level.

User Access to the System

User's access to the system is role based and segregation of duties.

Physical Verification of Inventory

The annual stock verification programme for various work centres for Fixed Assets, Stores & Spares shall be approved by Head of Stock Verification at Head Quarter/In-charge MM at locations. System based verification of fixed assets and items of stores and spares are conducted on perpetual basis based on ABC categorization of items.

Class A- To be verified in the current year

- i. Capital items on Stock
- ii. Stores or spares with Stock Value ₹ 4 lakhs and above
- iii. Stores or spares with last year consumption ₹ 50 lakhs and above

Class B- To be verified every two years

- i. Stores or spares with Stock Value Rs. 1 lakh and above but less than ₹ 4 lakhs
- ii. Class B is further subdivided into B1 and B2 based on the material group

Class C- To be verified every three years

- i. Stores or spares with Stock Value less than ₹ 1 lakh
- ii. Class C is further subdivided into C1, C2 and C2 based on the material group

The discrepancy reports will be marked to In-charge MM, concerned key Executive and Finance. If the discrepancies are not addressed in a period of 30 days, the same will be brought to notice of concerted key Executives and Chief MM. Upon resolution of discrepancy, the same would be closed in the ice system and information sent to stock verification team and finance team.

The proposal for write-off of discrepant or untraceable fixed assets/discrepant stores & spares/losses will be initiated by indentor/user/stock holder as applicable and submitted to the Competent Authority as per BDP through a committee comprising of members from MM, F&A and concerned Indenting/user section at E5 level. The write off action should be completed within a period of three months from the date of notice.

Confirmation of Balances

For obtaining confirmation of balance of debtors/creditors at the reporting date, Corporate Account Section issued necessary instruction to all the accounting units for necessary action. Corporate Accounts Section do not take any confirmation of balances. Documents in support of these will be available at unit level.

Internal control system

Section 143(3)(1) of the Companies Act 2013 requires the auditors of companies to report as to whether the company has adequate internal financial controls. According to the “Guidance Note on Audit of Internal Financial Controls over Financial Reporting” of ICAI dated 14 September 2015, the auditors needs to obtain reasonable assurance to state whether an adequate internal financial control system was maintained and whether such internal financial control system operated effectively in the company in all material aspects with respects to financial reporting. Statutory Auditors enquired (August 2015) about the following controls as per ICAI guidance note and raised concern about the non-availability of Risk Control Matrices as prescribed under ICAI guidance note:

- Entry Level Controls
- General Computer Controls
- Documentation of financial reporting process
- Test plans to ensure the operating effectiveness of the controls
- Identification of deficiencies etc.

Correctness of data and its processing:

Corporate Accounts issues instructions from time to time to all accounting units for preparation/finalization of accounts. On the basis of basic records available at unit/corporate level books of accounts i.e. Balance Sheet and Statement of Profit and Loss on periodic basis by each accounting unit using Business intelligence module of SAP. The information in respect of each accounting unit is reviewed by Corporate Accounts and standalone financial statements are prepared from the Balance Sheet and Statement of Profit and Loss along with schedules of all the units.

Government authorities and their respective roles on the Abandonment Plan

The responsibilities of various authorities listed below are categorized into the following:

Approval role: These authorities will need to approve the Abandonment Plan.

Consulting role: These authorities will play an advisory role, providing their inputs on the Abandonment Plan, if any, in a time bound manner.

Information only: These authorities will be informed of the Abandonment Plan.

Information Role:

The Abandonment Plan will be submitted to the with a copy to the following authorities with ‘consulting role’ for comments, if any, within 45 days of submission of Abandonment Plan in line with the guidelines

- 1 Oil Industry Safety Directorate (OISD) (for offshore production sites only)
- 2 Directorate General of Mines Safety (DGMS) (for onshore production sites only).

Consulting Role:

- 1 Ministry of Environment, Forest and Climate Change (MoEF&CC)
- 2 Ministry of Defence (MoD) – Consulting role (for offshore production sites only)
- 3 Ministry of Shipping (MoS) – Consulting role (for offshore production sites only)
- 4 Department of Animal Husbandry, Dairying and Fisheries (DoF) within the Ministry of Agriculture and Farmers Welfare (MoA&FW)(for offshore production sites only)
- 5 State Pollution Control Boards (SPCB) – Consulting role (for onshore production sites and offshore production sites up to 12 nautical miles/ jurisdiction of EP Act)

Approval role:

1. Ministry of Petroleum & Natural Gas (MoPNG) –(through Management Committee) (MC)]
2. Directorate General of Hydrocarbons (DGH) – Approval role (through MC)
3. Directorate General of Mines Safety (DGMS) – Approval role (for onshore production sites only)
4. Oil Industry Safety Directorate (OISD) – Approval role (for offshore production sites only)
5. Environmental Impact Assessment (EIA), where applicable, would need to be approved by the MoEF&CC)

(e) Internal Audit**Provisions Relating to the Appointment of an Internal Auditor under Companies Act, 2013**

- Section 138 of the Act mandates the appointment of an Internal Auditor for specified classes of companies. The Companies (Accounts) Rules, 2014 prescribe the classes of companies that are required to comply with this provision.
- The Internal Auditor can be either a chartered accountant or a firm of chartered accountants or a cost accountant. The Board can also appoint any other professional as an Internal Auditor.
- The Internal Auditor will be responsible for conducting the internal audit of the functions and activities of the company.
- The scope of Internal Audit,
- its periodicity and methodology are to be formulated by the Board or the Audit Committee. This shall be formulated in consultation with the Internal Auditor.

Classes of Companies Required to Appoint an Internal Auditor

- a. **Listed Companies:** Appointment of an Internal Auditor is mandatory.
- b. **Unlisted Public Company and Private Companies:** Appointment of an Internal Auditor is mandatory if either of the following criteria are met:

Criteria*	Unlisted Public Companies	Private Companies
Paid-up share capital	INR 500 million (50 crore) or more	<i>Not a determining factor</i>
Turnover	INR 2 billion (200 crore) or more	INR 2 billion (200 crore) or more
Outstanding loans or borrowings from banks or public financial institutions	INR 1 billion (100 crore) or more	INR 1 billion (100 crore) or more
Outstanding deposits	INR 250 million (25 crore) or more	<i>Not a determining factor</i>

*to be checked for the preceding financial year

As per Section 138 of Companies Act, 2013, the Board of a Company may, besides a Chartered Accountant, appoint a cost accountant or any other professional to conduct Internal Audits. The ICAI recommends the adoption of the SIAs by non-members of the ICAI who are performing internal audits so as to ensure a consistent approach and quality in the discharge of their professional duties.

There exists a sound Internal Audit System in the Upstream and Downstream Companies under the audit purview of this office.

Internal Audit

Internal audit is an independent appraisal function established by the management. ONGC has updated Internal Audit Department Manual. Internal audit's primary role is to provide an objective evaluation of the operations, information and control system that management has put in place. Its focus would generally be on helping the management in the development of effective and efficient controls. The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the organization's system of internal control. It includes:

1. Reviewing the reliability and integrity of financial and operating information and the means used to identify, measure, classify and report such information.
2. Reviewing the systems established to ensure compliance with those policies, plans, procedures, and regulations, which could have significant impact on operations and reporting on whether the organisation is in compliance.
3. Reviewing the means of safeguarding assets and as appropriate, verifying the existence of such assets.
4. Reviewing the risk management policies of the Corporation at periodic intervals.
5. Reviewing and appraising the economy and efficiency with which resources are employed and utilized.
6. Reviewing operations or programmes to ascertain whether results are consistent with established objectives and goals and whether the operations or programmes are being carried out as planned.
7. Review individual transactions on a sample basis to ensure compliance with laid down policies and procedures of the organization.

Internal audit is a function that, although operating independently from other departments and reports directly to the audit committee, resides within an organisation (i.e. they are company employees). It is

responsible for performing audits (both financial and non-financial) within a wide range of areas within a business. Internal audit looks at key risks facing the business and what is being done to manage those risks effectively, to help the organisation achieve its objectives.

Standards on Internal Audit (SIAs) prescribes the minimum requirements for ICAI members conducting internal audit of any entity/ company. However, Cost Accountants/ Other Professionals conducting internal audits have been recommended by ICAI to adhere to SIAs to ensure a consistent approach and quality in their professional work. List of ‘Standards on Internal Audit (SIA)’ issued by the ICAI (updated 27 Nov. 2018), is as under:

1. Preface to the Framework and Standards on Internal Audit
2. Framework Governing Internal Audits
3. Basic Principles of Internal Audit
4. Standard on Internal Audit (SIA) 210, Managing the Internal Audit Function
5. Standard on Internal Audit (SIA) 220, Conducting Overall Internal Audit Planning
6. Standard on Internal Audit (SIA) 310, Planning the Internal Audit Assignment
7. Standard on Internal Audit (SIA) 320, Internal Audit Evidence
8. Standard on Internal Audit (SIA) 330, Internal Audit Documentation
9. Standard on Internal Audit (SIA) 4, Reporting
10. Standard on Internal Audit (SIA) 5, Sampling
11. Standard on Internal Audit (SIA) 6, Analytical Procedures
12. Standard on Internal Audit (SIA) 7, Quality Assurance in Internal Audit
13. Standard on Internal Audit (SIA) 8, Terms of Internal Audit Engagement
14. Standard on Internal Audit (SIA) 9, Communication with Management
15. Standard on Internal Audit (SIA) 11, Consideration of Fraud in an Internal Audit
16. Standard on Internal Audit (SIA) 12, Internal Control Evaluation
17. Standard on Internal Audit (SIA) 13, Enterprise Risk Management
18. Standard on Internal Audit (SIA) 14, Internal Audit in an Information Technology Environment
19. Standard on Internal Audit (SIA) 16, Using the Work of an Expert
20. Standard on Internal Audit (SIA) 17, Consideration of Laws and Regulations in an Internal Audit
21. Standard on Internal Audit (SIA) 18, Related Parties

Assistance of Internal Audit to Audit team of this Office:

Direct assistance from internal auditors could result in threats to independence as they are employees of the entity. However, the following benefits can be derived from the internal audit of the entity:

1. With the knowledge of the internal auditors, our audit team can get additional insights of the entity.
2. Internal Auditors have an expertise in the relevant field/particular area and hence their knowledge can be useful for our audit conclusion
3. The significant issues pointed out by internal audit can be focused by the team.
4. The strengthened relationship can lead to effective dialogue at appropriate level.

During the audit, the field audit team has to:

1. Review the work performed by internal auditors bearing in mind that internal auditors are not independent of the entity.
2. Check the Internal Auditors report with reference to the underlying audit evidence, audit documentation and working papers for the work performed by the Internal Auditors.
3. Evaluate internal controls put in place to manage the risks which could affect the financial accounts.

(f) Inventory Control:

Inventory Audit helps in prevention and early detection of frauds by ensuring proper preservation/storage of stock, segregation of obsolete and non-moving stock, adequately insuring stock against all major perils and caution required for proper maintenance of stock. It involves conducting a comprehensive and accurate valuation of inventories by taking into account physical controls, obsolete inventory, scrap and returned goods.

In audit of inventory control system, the following points needs to be taken into account:

1. The nature of the accounting and internal control systems used regarding inventories
2. Inherent control and detection risks and materiality related to inventories.
3. Whether adequate procedures are established and proper instructions issued for physical verification of inventories.
4. The periodicity of verification of inventories.
5. The location at which inventories is held and its nature. Inventories are also held at borrower's premises, in transit, in a warehouse, processing, etc
6. Where significant stocks of the entity are held by third parties, it should be examined whether the third parties are entitled to hold the inventories of the entity. Whether written confirmation of the inventories held by the third parties are obtained.
7. The method of valuation of inventories.
8. The cost of purchase of inventories including import duties and other taxes and transport, handling and other costs directly attributable to the acquisition of finished goods, materials and services. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase
9. The conversion costs of inventories including costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods.
10. In arriving at net realisable value whether (i) damaged/obsolete/non-moving stock?
(ii)Subsequent sale price after Balance Sheet Date? were taken into account

**CHAPTER II
CHECKLIST
PART -I**

A CHECKLIST FOR UPSTREAM COMPANIES

Upstream is commonly known as the exploration & production (E&P) section. It covers all activities related to searching for, recovering, and producing crude oil and/or natural gas from underground or underwater fields. This sector covers drilling of exploratory wells, and subsequent drilling and operating the wells that recover and bring the crude oil or raw gas to the surface.

Some of the major activities in this sector include:

(a) Exploration:

- Geological & geophysical (G&G) surveys are used to explore possible sites.
- Searches for underground or underwater crude oil & natural gas fields.
- Leases & permissions from the land owners to drill are acquired.
- Drilling exploratory wells (costly).

(b) Production:

- Extensive time and labor is required to drill the oil and gas.
- Short term storage of the oil & gas.
- Plug & abandonment finish off the well. This is the last step in the process. The size of the underground/water field determines the extent of this activity.

Special points to be seen in Upstream Audit

Audit will make an attempt to individually scrutinize the transactions of Basin, Asset, exploration, operational activities and services as described under:

1. BASIN MANAGER'S OFFICE

1. Identification of locations with possible recoverable reserves
2. Consumer identification for the output in the location
3. Acquiring Petroleum Exploration License (PEL) for the location
4. If PEL is already existing, the need for applying re-grant and the fees paid thereon
5. If PEL was not forthcoming, then the alternatives proposed
6. Acquiring land for survey
7. Contract for shot hole drilling
8. Collection of data either on its own or through outside agency
9. To decide whether the data be on 2D or 3D
10. Award of contract for interpretation of data- either in India or by foreign agency
11. The time taken to obtain data, its interpretation, actual usage of data in drilling
12. Any data remaining unutilized or uninterrupted
13. Reprocessing of data acquired, the excess amount involved
14. The time lag between acquisition of data, its interpretation with time it was taken to Regional Exploration Board (REXB) meeting
15. The time taken to release the location by REXB
16. If the locations not released and kept pending even after it was released by REXB
17. The details of land acquisition and the corresponding compensation paid
18. The details of civil works preparatory for drilling like site acquisition, site leveling, borders, fences, construction of roads and bridges etc.
19. The preparation of Drill site accommodation
20. Movement of rig- whether it is ONGC rig or Contract Rig
21. Award of contract to private hire rig right from NIT to actual award of contract
22. The previous experience with the rig operator either in the same region or in other region
23. Whether there is change in Clauses in the contract condition with reference to same contractor in some other contract or with other contractor in the same region or elsewhere
24. The extent of mobilization charges paid including demobilization charges
25. Disputes with the contractor including court cases
26. Comparison of performance with ONGC own rigs with contractor's hired rigs
27. The stores yard accounting including DTYS stores
28. Non- moving/ obsolete stores in main stores and in DTYS to be seen
29. The actual drilling procedure - the date of mast up, rig move from previous location, actual drilling days, rig working, time balance of rigs, analysis of idle time of rigs
30. If the well gone dry and abandoned, the reason for the same to be

analyzed

31. If extra ordinary days were taken for drilling, the reason for the same to be seen
32. Complications arising out of drilling leading to abandonment also to be seen
33. If number of dry holes are more in particular location, the need to go in for drilling in the area to be seen
34. If the well started producing, the methodology of exporting gas or oil to be seen
35. If the well is shown under 'waiting for consumer', ' waiting for work over' and 'waiting for chemicals' the reason for the same to be seen
36. While drilling if the well has taken quite a considerable time due to (a) faulty planning,(b) defective input material, (c) contract deficiency ,(d) improper allocation of rigs etc, these aspects are also to be seen
37. Zig-zag movement of rigs leading to infructuous payment of non-operating charges and rig movement cost
38. The inventory of dry and abandoned wells over exploratory producing wells
39. Write-off of dry wells over the years with their well costs to be seen
40. The extent of chemical used, time barred chemicals stored, the action taken to clear these chemicals to be seen
41. Accounting for casing pipes (whether procured using Essentially certificates from DGH, New Delhi of the imported casing pipes by paying full customs duty), returned pipes, defective pipes etc
42. Court cases, Arbitration cases, vigilance cases, loss of property due to fire, fraud, embezzlement and misappropriation etc. to be seen

(a) EXPLORATION

1. Review the annual targets and work programmes for survey,
2. See that the survey vessels and field parties are optimally utilized,
3. Examine the non-productive time, check the time lost under various heads such as excess time consumed in camp establishment, camp winding up, shut downs, want of material, etc.,
4. See that the 3 D survey is effectively conducted.
5. See that the exploration data collected is processed and used in time without any backlog,
6. See that the survey vessels and equipment are maintained properly,
7. Review the need for contractual survey,
8. Review the contracts entered into for survey work.
9. Review the records of various stores attached to exploration Group.
10. Audit the various contracts and purchase/supply orders.

(b) DRILLING

1. Review the targets for drilling and annual drilling programme.
2. Review the well completion reports of the various wells drilled,
3. Analyse the excessive time spent on drilling and cost overruns with reference to estimates.
4. Analyze the avoidable complications in drilling
5. Review the need for charter hire of rigs and other services in drilling and their effective utilization by proper deployment.
6. Review the rig movements and the idle time analysis of rigs under various controllable and uncontrollable reasons.
7. Verify that proper records are maintained to show (i) materials drawn by drill site and, (ii) stock/materials lying at drill site and (iii) consumption.
8. Examine the systems and procedures laid down for accounting of materials returned from drill site and ensure the same is effectively implemented.
9. Analyse the drilling speed of various contractual/departmental rigs and ensure that there is no deviation from technical/acceptable norms.
10. Test check the consumption of high cost items like HSD, casings tubing, bits, etc., vis-à-vis estimates.
11. Examine whether the drilling rigs are maintained and serviced regularly and properly so that there is no break-down maintenance.
12. In the case of hired rigs, ensure that the contractor fulfils all the requirements of the contract.
13. Check that the daily rates payable to the contractor are properly computed and that there is no excess payment.
14. Check the exchange fluctuation payment for contractual rigs.
15. Audit the various contracts and purchase/supply orders and review the records of various stores attached to drilling Services.

(c) LOGGING

1. Examine the hire contracts for mud logging and electro logging and the need for the hiring.
2. Check that the rates are worked out as per the contract and that there are no overpayments.
3. Check that the equipment and personnel have been deployed as per the terms of the contract and proper recoveries have been affected for short deployments, defective equipment with reference to the register maintained in the drill site.

(d) TECHNICAL

1. Review the various turnkey/major contracts and supply orders awarded and their

implementations.

2. Review the contracts with Engineers India Limited (EIL) and other consultants.
3. Review the steps taken for control of inventory, slow-moving/non-moving inventory etc.
4. Whether the project is technically and economically viable.
5. Whether Turnkey contract is awarded to the lowest bidder if not reasons for the same are recorded.
6. Whether Project is completed in prescribed time and cost, reasons for cost/time overrun, whether liquidated damages are recovered in case of time over run.
7. Treatment for less/ excess materials required than specified in contract.
8. Whether cost of material envisaged but not used has been recovered.
9. Problems encountered during execution of project.
10. Review of arbitration cases with contractors
11. Review the various turnkey/major contracts and supply orders awarded and their implementations.

2. ASSET MANAGER'S OFFICE

1. All the development wells, their production related activities will be with Asset Manager.
2. Whether the development wells are covered by respective Mining leases (ML)
3. If the cluster wells are covered under ML, the activities like connecting these wells and their outcome
4. The major activity in C&M (Construction and maintenance) covers pipeline laying, acquiring ROU (Right of User) and related activities
5. Total area earmarked for ROU and actual work undertaken
6. Wells which are not connected by transport pipes
7. The number of development wells not producing right from day one and the reason for its failure
8. The number of wells identified for work over jobs and actual jobs undertaken
9. The action taken to identify sick wells and sick well maintenance undertaken and recovery thereafter
10. If the well is closed for maintenance work/work over, the period of such closure to be seen. If the period is longer than expected, then the reason to be probed
11. The rigs to be used in work over operation- whether it is own or hired rigs
12. Contract finalized for hired work over rigs, Notice Inviting Tender (NIT), Bid Evaluation Criteria (BEC) , Analysis

- of terms and conditions of contract, actual payment terms, etc. to be seen
13. The production from the wells and transporting to Group Gathering Station/ Gas collection Station (GGS/GCS)
 14. The extent of oil and gas production from individual wells getting merged in GGS/GCS
 15. Generally, oil is being sold to downstream industries, the selling point being the outer gate of GCS, to see whether there is any transit loss. If so, whether it is under the permissible limit
 16. While oil is sold to downstream oil industries, gas is sold to GAIL through its pipeline network
 17. The agreement with oil industries and its impact on the transportation of oil
 18. Transportation of oil (thro tankers or barges) to be seen
 19. The agreement for transport and the arrangement made for transporting oil
 20. Payment of royalty, cess, sales tax etc on the sale of oil/gas
 21. The matters pending with central excise, sales tax authorities over these sales,
 22. The construction of terminals/platforms if the wells are in shallow waters and the utilization of these terminals
 23. If there is onshore land fall point along with the processing facilities, the actual utilization with reference to capacity utilization
 24. Correspondence with Oil industries/GAIL for any cases pending settlement
 25. Since the logistics (being support service) also come under Asset Manager, their function also to be viewed.
 26. Marketing functions of ONGC, their correspondence with Ministry etc. to be seen.
 27. Computer data on wells, production, sales, maintenance of wells in EDP section and its utility to be reviewed.
 28. Electronics & Telecommunication facilities and its utilization to be reviewed
 29. The functions of well services such as, work over, WSS, well completion & testing and contracting & planning to be seen
 30. Inventory control procedure of various stores
 31. Various projects undertaken for promoting production, sales, maintenance, time over run, cost overrun, usability of these projects etc. to be seen.
 32. Nonmoving / obsolete items/ time barred chemicals in stores are to be evaluated.

(a) OPERATIONS

1. Review the annual targets for production and the steps taken to achieve the same
2. Review the field production rates with reference to the profiles made for the particular field
3. Check that the recovery rates are as recommended and with recommended inputs for maintenance of reservoir health
4. Ensure adequacy of the maintenance of the wells by proper and necessary work over jobs and analyze the successes of work over operations.
5. Ensure the adequacy of the maintenance of major production installations offshore and onshore
6. Examine the telemetry and telecommunication networks and their effective utilization
7. Check the quantitative account of crude oil/gas produced and dispatched as maintained by the production department
8. Review the records of various production installations offshore and onshore
9. Audit the various contracts and purchase/supply orders and review the records of various stores attached to Assets

(b) LOGISTICS

1. Marine and Air logistics are major items of expenditure in offshore. Examine the contracts for operation and maintenance of OSVS, MSVS and other vessels
2. Examine the charter hire contracts for OSVS, MSVS
3. Check the effective utilization of hired helicopter services
4. Examine the transport contracts for hire of buses, cars, jeeps, etc.
5. Examine the consumption of HSD by OSVS/MSVS, HSD carried by these vessels to offshore installations and see that there is no wastage and pilferage

(c) TRANSPORTATION AND SHIPPING

1. Examine the effective clearance of imported consignments, and their proper despatch to the user department
2. Review the demurrage payment
3. Review the customs duty assessment of the imported consignments and check that there are no cases of avoidable or excess payment of duty
4. Check that the customs duty claims are properly followed up and settled expeditiously

3. JOINT VENTURE OPERATIONS

1. Detail of all JVC entered into by ONGC to be collected
2. Files at EXCOM, New Delhi on award of JVC to be studied
3. Files at DGH, New Delhi on JVC
4. Previous audit reports as available in DGH to be seen
5. Any change in the ONGC's share in the Joint Venture- prior and after the JV went for commercial production and its effect the viability of the JVC
6. The production profile of the JV - before and after it went on JV- promising field given on JV- to be seen
7. Payment of statutory levies by ONGC
8. Operators' Coordination Meeting (OCM)/Management Committee Meeting (MCM) minutes of individual JV to be seen
9. Auditors report of the Operator's books to be seen
10. Correspondence with the operator
11. Arbitration cases with the operator/ third parties/ Government
12. Payment of 'profit petroleum' to Government
13. Provision of site restoration costs
14. All general matters

4.FINANCE AND ACCOUNTS

Audit team is required to familiarize itself with:

2. The 'Successful Efforts Method of Accounting' and other accounting policies of the ONGC before the audit of annual accounts
3. Ind AS issued by MCA and its guidelines on Oil and Gas Accounting Guidelines issued by ICAI. Audit should also read the Accounts Manual of the corporation

Audit should examine the accounting of dry and abandoned wells, analytical registers and service wise allocation of expenditure, the bases for allocation, area wise accounting, reckoning, of reserves, depletion and amortisation of producing properties, accounting for foreign exchange fluctuations, etc.

5.GENERAL

1. Review of Agenda and Minutes of Corporation's meetings
2. Review of Agenda and Minutes of Executive Committee meeting.
3. Review of Agenda and Minutes of projects and Production Monitoring Committee (PPMC) meetings
4. Review of Monthly and Annual Reports of respective Assets, Basins, Plants, Services and Institutes etc
5. Review of Internal Audit Reports
6. Need for continued retention of Petroleum Exploration Licence and Mining lease and the payments on these accounts
7. Prolonged and uneconomic exploration

8. Review of Exploration Discovery Index, Success Ratio, Reserve/production ratio, cycle speed/commercial speed of rigs, work over index and other norms and various key parameters of progress
9. Review of Memorandum of understanding with the Government
10. Review the various sales contracts and ensure prompt raising of bills on customers and the realisation of monies
11. Effective formulation of conceptual/technological schemes of development for discovered fields, preparation of feasibility reports and the effective implementation of projects/schemes, achievement of Internal Revenue Return (IRR)/External Revenue Return (ERR) projected in the Feasibility Reports(FR)
12. Efforts for indigenization and import substitution
13. Need for technical consultancy agreements and collaborations and the gains there from
14. Review of operations/activities of various R&D institutes
15. Review of various bank accounts, especially bank accounts kept abroad, optimal utilisation of funds including surplus funds and proper and prudent investment of surplus funds, etc
16. Audit of establishment, manpower, various incentive schemes in operation, estate, medical, security and vigilance, Guest House, EDP and other general administration departments
17. Review of records related to Environmental Impact Assessment (EIA) and Environmental Audit Reports as per Environmental (Protection) Act 1986 and other amended Rules to ensure the compliance

6. AUDIT OF NELP PSC:

1. Whether the Contractor had submitted the requisite guarantees as provided for in the Article of PSC, before proceeding to the next exploration phase?
2. Whether technical or other reasons given by the contractor for time extension to complete Minimum Work Programme is justified and DGH has followed extension policy uniformly to all Operators?
3. Whether contractor had surrender the contract area after completion of each exploration phase as per provision of PSC (i.e. 25% of contract area after completion of first exploration phase and 50% of total contract area after completion of second exploration phase excluding development and discovery area)
4. Whether any claim arising out or in relation to the act of negligence, misconduct, commission or omissions in carrying out Petroleum Operations during the period between the Effective date and the date of relinquishment of the Contract Area or termination or expiry of the contract, as the case may be, has been recovered from the Contractor?
5. Whether contract had commenced petroleum operations within six months from effective date?
6. Whether contractor had determined actual depth objective in the light of advice of MC before commencement of drilling?

7. Whether depth/geological objectives of wells drilled was achieved or substitute well of same specifications was drilled by the contractor?
8. Whether the Contractor, in case of failure to fulfill the Mandatory Work Programme or Minimum Work Programme or both had paid to the Govt. its participating interest share for an amount equal to the amount which would be required to complete the said Mandatory Work Programme or Minimum Work Programme or both?
9. Whether cost estimate adopted by the contractor are reasonable and realistic?
10. Whether DGH had validated such cost as per provision of PSC?
11. Whether contractor had submitted Work Programme and Budgets relevant to Petroleum Operations to be carried out during the relevant year within 90 days before commencement of each following year to MC for review/advice?
12. Whether Work Programme and Budgets for exploration period was sufficient to meet the relevant Mandatory Work Programme or Minimum Work Programme?
13. Whether MC met regularly, i.e. at least once every 6 months during Exploration period and thereafter at least once every 3 months or more frequently at the request of any member?
14. Whether all the matters required to be submitted to the MC for approval were submitted and got approved by the Operator?
15. Whether minutes of MC meetings were prepared and got approved as per provision of PSC?
16. Whether any expenses of the members of the Management Committee attending meetings of the MC were recovered towards Contract Cost?
17. Whether the Contractor provided to the Govt. a copy of the duly executed Operating Agreement within 30 days of the Effective Date or such larger period as may be agreed to by the Govt.
18. Whether the Contractor had carried out the petroleum operation obligations as per the provisions of Article 8 of PSC?
19. Whether the Contractor, immediately after discovery, informed the Govt. and MC of the discovery and within 30 days from the date of discovery furnished to the MC and Govt. the particulars of such Discovery in writing?
20. Whether the Contractor, after Discovery promptly run tests to determine whether the Discovery was of potential commercial interest and within a period of 60 days after completion of such tests submitted a report to the MC containing data obtained from such tests, its analysis and interpretation thereof, together with a written notification of whether, in the Contractor's opinion, such Discovery was of potential commercial interest and merits appraisal?
21. Whether the Contractor prepared and submitted to the MC, within 120 days of notification of potential commercial interest of discovery to MC, proposed Appraisal Programme with a Work Programme and Budget to carry out appraisal of such Discovery?
22. Whether MC reviewed proposed Appraisal Programme within 30 days after submission thereof by the Contractor?
23. Whether contractor intimated regarding commercial discovery of crude oil & submitted proposed development plan within time schedule fixed in the PSC?
24. Whether MC and Government convey its views/approvals thereof within time schedule fixed in the PSC?
25. Whether the Govt. at all reasonable times, inspected and tested the appliances used for measuring the volume and determining the quality of Petroleum?
26. Whether the parties of the Contract, before commencement of production from the Contract Area, mutually agreed on methods to be employed for measurement of volumes of Petroleum production, frequency of inspection, testing of measurement appliances and procedures and

- also the consequences of determination of error in measurement?
27. Whether the Contractor gave timely notice to the Govt. of its intention to conduct measuring operations of petroleum and whether the Govt. directly or through authorized representative, was present at and supervised such measuring operations?
 28. Whether the Contractor maintained all the records of analysis and measurement of Petroleum hydrocarbons calibrations and proving of measurement system and made available to Government or its authorized agency such records on request?
 29. Whether the Contractor conducted the Petroleum Operations with due regard to concerns with respect to protection of the environment and conservation of natural resources?
 30. Whether the Contractor, prior to conducting any drilling activities, prepared and submitted for review by the Govt., contingency plans for dealing with oil spills, fires, accidents and emergencies, designed to achieve rapid and emergency response?
 31. Whether contractor carried out environment studies and submitted report to the Government i.e. (i) before commencement of seismographic survey and drilling operation & (ii) before commencement of development operation?
 32. Whether Government had given the environmental clearance within stipulated time of 120 days from the date of submission of environmental report by the contractor?
 33. Whether contractor prior to conducting any drilling activities prepare and submitted for review by the Government contingency plan for dealing with oil spills, fire, accidents and emergencies, etc.
 34. Whether the Govt., in the event of the Contractor's failure to comply with any of the terms of Article 14.7 regarding implementation of contingency plans for dealing with emergency or accidents arising from Petroleum Operations, took necessary action to ensure compliance with such terms and to recover from the Contractor all costs and expenditures incurred along with the interest determined in accordance with Section 1.7 of Appendix C of PSC?
 35. Whether the Contractor on expiry of Contract or relinquishment of part of the Contract Area (subject to article 27) removed all equipment and installations from the relinquished area or former Contract Area in a manner agreed with the Govt. and performed all necessary Site Restoration and took all other actions necessary to prevent hazard to human life or to the property of others or the environment?
 36. Whether the Contractor prepared a proposal for the restoration of site including abandonment plan and requirement of funds for that and the annual contribution?
 37. Whether a Site Restoration Fund established and the annual contribution deposited into it by the Contractor?
 38. Whether the Contractor recovered the Contract Costs viz. Royalty payments, Exploration Cost, Production Cost and Development Cost strictly as per entitlement given in Article 15 of PSC?
 39. Whether the Contractor recovered the Contract Cost in excess of the maximum amount permissible or recoverable as per PSC?
 40. Whether final calculation of contractor's entitlement to cost petroleum was agreed upon between Government and the contractor and necessary adjustments to the provisional cost petroleum was carried out within stipulated time mentioned in PSC.
 41. Whether party's share of profit petroleum was calculated in accordance with the provisions of the PSC and Government received its share of profit petroleum on the basis of option exercised by it i.e. either in cash or in kind?

42. Whether contractor's worked out provisional estimates of profit petroleum based on estimated figures of contract costs, production, prices, receipts and income on quarterly basis and same has been approved by the MC?
43. Whether within 60 days of the end of the year, a final calculation of profit petroleum based on the actual costs, production prices, receipts and income was worked out by the contractor and same was agreed upon between contractor and government within 30 days thereafter
44. Whether the Profit Petroleum due to the Govt. was deposited with PAO, M/o PNG by 10th of the month following each quarter? (NELP-IV provision-16.5)
45. Whether the Companies (lessee) timely paid Royalty to the Govt. as per rates mentioned in Article 17.4 of PSC? (17.4)
46. Whether the Contractor has made payment of annual license charges and rental fees and other charges under the Rules?
47. Whether the Companies (lessee) timely paid Royalty to the Govt. as per rates and time schedule mentioned in PSC?
48. Whether the Contractor has made payment of annual license charges and rental fees and other charges under the Rules?
49. Whether Government had any time inspected records and documents of the physical items or items of the contractor for which custom duty exemption has been granted?
50. Whether contractor submitted production forecast to all the parties for the succeeding year as well as quarterly forecast prior to commencement of each quarter as per time schedule mentioned in the PSC?
51. Whether crude lifting procedure and crude sales agreement based on generally acceptable international terms with the consent of the Government prior to commencement of production in the field was finalized?
52. Whether company constituting contractor submitted to the designated nominee of the Government within 15 days of the end of each delivery period, a report containing the actual prices obtained in their respective Arm's Length Sales for any crude.
53. Whether designated nominee of the Government examined relevant sales contract.
54. Any price or pricing mechanism agreed by the parties should not be changed retroactively
55. Whether Government approved gas price formula or basis prior to the sale of Natural Gas to consumers/buyers within 60 working days from the receipt of proposal or from the date of receipt of clarifications/additional information, where asked by the Government?
56. Whether Government or its nominee requested foreign company constituting contractor to render technical assistance and made available commercially proven technical information of a proprietary nature for use in India or company nominated by the Government?
57. Whether the contractor within 60 days after end of each year provided to the Government report outlining its achievement in utilizing Indian resources during that year?
58. Whether the contractor during the term of contract obtained insurance coverage for and in relation to Petroleum operations for such amount and against such risk as are customarily or prudently insured in the international petroleum industry
59. Whether the contractor submitted to the Government regular statements and reports relating to petroleum operations as provided in Appendix-C of PSC?
60. Whether contractor selected chartered accountant firm with the approval of the Government and submitted the audited report within 30 days of receipt thereof to the Government?
61. Whether Government exercised its right of auditing of accounting records of the contractor as provided in the accounting procedure?
62. Whether contractor furnished periodical reports relating to petroleum operations to the

Government?

63. Whether the Contractor handed over all the originals and copies of the Data & Information with respect to that area, which ceases to be part of contract Area, within a period of one year from the date of relinquishment or surrender?
64. Whether Government through its authorized representatives observed petroleum operations and inspected all assets, books, records, accounts, contracts, samples and data kept by the contractor or operator in respect of petroleum operations in the contract area?
65. Whether the sale proceeds of Equipment and Assets (sold, exchanged or otherwise disposed of by the Contractor) no longer required for Petroleum Operations during the term of the Contract were credited to Petroleum Operations as provided in Appendix C?
66. Whether prior written consent of Management Committee was obtained for transactions mentioned at S. No 1 above, for amount exceeding US \$ 50,000 or such other value as may be agreed from time to time by the Management Committee?
67. Whether prior written consent of the Government was obtained where assignment of interest taken place?
68. Whether each of the Companies constituting the Contractor procured and delivered to the Government within 30 days from the effective date of the Contract an irrevocable, unconditional bank guarantee from a reputable bank of good standing in India, performance guarantee in favour of the Government from a parent company according to the provisions of PSC?
69. Whether amount of irrevocable, unconditional bank guarantee is equal to 35% of the company's PI share of the total estimated annual expenditure in respect of MWP to be undertaken by the contractor in the contract area during the relevant year of phase?
70. Whether the Contractor, before proceeding to the 2nd and 3rd Exploration Phase respectively of the Exploration Period, delivered to the Government a bank guarantee for the succeeding Exploration Phase in terms of Articles 29.1 (a), 29.2 and 29.3 of PSC? (29.4)
71. Whether contractor claiming suspension of its petroleum obligations on account of Force Majeure had within 7 days after the occurrence of event of Force Majeure notify the Government in writing giving full particulars of the Force Majeure?
72. Whether parties to the contract had referred disputed matters which cannot be settled amicably within 90 days after the dispute arises?

7.AUDIT OF PROCESSING PLANT

1. Study operating manual of plant to understand process description of plant such as receipt partially stabilized crude at plant to dispatch of stabilized crude to refinery, treatment of produced water, receipt of gas at plant and production of condensate, VAPs, LPG and sale of lean gas to consumers.
2. Check whether existing infrastructure/capacity of plant is sufficient to handle the plan dispatched of crude oil and natural gas from offshore/GGS.
3. Verify installed and operating capacity of plant, capacity utilisation of plant against the target and analyze the reasons for variations and its impact on cost and production.
4. Verify plan vs. actual production of crude oil, natural gas, Value Added Products (VAPs) and analyze reasons for variations.
5. Verify the basis/process for fixation of annual targets / MoU targets for production of VAPs, gas sales, power generation etc.
6. Verify target vs. actual for cost of production of VAPs, power generation.

7. Verify and compare month-wise/year-wise reconciliation factor for crude oil receipt and dispatched and material balance of gas (from intake-shrinkage-internal use-technical flaring-sale)
8. Verify sale of VAPs to various consumer as per agreement and timely receipt of sales proceeds.
9. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators) KPIs (of Plant and analyze reasons for non-achievement of any KPIs target and its impact on cost, production and safety/environment .Also verify trend analysis of overall score and individual KPI score awarded for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the actual performance KPIs in past.
10. Verify parameters and methodology of preparing the Budget for offshore engineering related activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure)BE & RE(and analyze the reasons for large variations and its impact on cost overrun/time overrun and envisaged production.
11. Verify whether stores/spares/chemicals and consumable for operation of plant were procured in time at economical price by following the Material Management Manual of the Company and approval taken as per BDP
12. Payment made to Suppliers/Contractors as per contractual provisions.
13. Verify whether in-house/consultancy study has been carried out for viability of any new/expansion/up-gradation of plant facilities.
14. Study Feasibility Report for basis/assumptions considered for viability of project and individual cost components and time schedule for each project activity, internal guidelines/hurdle rates adopted for calculation of projected NPV and IRR.
15. Verify the reasons for time and cost overrun of project and its impact on production/project viability.
16. Verify the adherence to preventive maintenance schedule for upkeep of equipment, overhaul schedule and replacement policies for critical equipment's.
17. Verify the standby philosophy for critical equipment and its availability for uninterrupted plant operation.
18. Verify System and Equipment availability of critical equipment against the target set and impact on production.
19. Verify the internal consumption of gas against the norms.
20. Verify avoidable flaring of gas and loss of revenue.
21. Verify the calibration policy of measuring equipment and its adherence.
22. Verify the cost of power generated for operation of plant vis-a-vis purchase of power from state authority.
23. Verify adherence to Health Safety and Environment Policy of the Company and compliance to in-house/third party safety/environment audits.

8. OFFSHORE PRODUCING FIELD (ASSET)

1. Verify the basis/process for fixation of crude oil, natural gas production target. Whether annual target (BE) of Asset is align with the MoU target signed /Long Term Plan/ Vision document/Perspective plan of the Company.
2. Verify daily production report (DPR) and consolidated periodical reports production reports to see reasons/justifications given for non-achievement of production targets with reference to avoidable and unavoidable reasons and remedial measures taken to mitigate such risk.
3. Verify the basis/process for fixation targets under various Key Performance Indicators (KPIs) for evaluation of performance of asset on annual basis. Review the justification for any change in the KPIs (addition and deletion) and weightage awarded to the various KPIs. Analyse the reasons for non-achievement particular KPI target and final rating awarded against each KPIs.
4. Review the Service Level Agreement (SLA) entered by the Asset with the various service providers (*example- engineering/drilling/well/logistic services*) for providing the various services and system in place for monitoring and reporting for ensuing receipt of agreed services to asset in time.
5. Verify the crude oil, natural gas and condensate production measurement and reporting system and its application with reference to international measurement and reporting system.
6. Verify whether handling capacities at production facilities such as oil/gas/water separation dehydration, gas compression, produced water treatment, power generation is sufficient to handle well fluid.
7. Verify whether water injection plan has been prepared for each reservoir to ensure a replacement ratio as close to 1 as possible keeping in mind the following factors.
 8. Design efficiency of the equipment.
 9. Downtime of water injection equipment / lines
 10. Injector well acceptance (shut down or decrease in acceptance volume of injector wells)
11. Verify whether desired quantity and quality was injected into reservoir as planned and if not its impact on crude oil production, quality of reservoir, health of water injection equipment/pipeline and water injection wells.
12. Verify whether gas injection plan has been prepared for each reservoir keeping in mind the following factors.
 13. Design efficiency of the equipment.
 14. Downtime of gas injection equipment / lines
 15. Injector well acceptance (shut down or decrease in acceptance volume of injector wells)
16. Verify whether Artificial lift system was tested on being installed and all artificial lift systems are optimized on a continuous basis so that maximum achievable production is possible.
17. Verify parameters and methodology of preparing the Budget for offshore field (asset) and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure (BE & RE) and analyse the reasons for large variations and its impact

on cost of production and loss/deferment of production.

18. Examine the indent for justification of procurement of goods and services, records relating to accord of administrative and financial sanction from competent authority as per deletion of financial power laid down by the Company, tender invitation & finalisation in accordance with Company's Integrated Material Management Manual.
19. Verify the workover plan to see whether predicted increase in production (each well) in post work over is realistic and rational. Verify the adherence of work over plan keeping in mind the business challenges and production potential of the well. Also verify the post completion performance of workover well from point of view of cost benefit analysis.
20. Verify well testing/well stimulation is carried out as per guidelines of asset/frequency set.
21. Verify the action taken to identify sick wells and sick well maintenance undertaken and recovery thereafter.
22. Verify if the well is closed for maintenance work/work over, the period of such closure to be seen. If the period is longer than expected, then the reason to be probed.
23. Verify all stores/spares/chemicals for petroleum operations were procured in required quantities and quality and issued for consumption in time.
24. Verify whether payments to suppliers'/service providers were made in accordance to the contractual provisions.
25. Verify adherence to Preventive Maintenance Schedule (PMS) of all critical and essential equipment, overhaul and replacement policies, revamping of facilities.
26. Verify the achievement of target sets for system and equipment availability of critical equipment and its impact on production.
27. Study the Health Safety and Environment (HSE) policy and its adherence. Verify compliance to all statutory applicable rules and regulations and compliance to internal/third party audit (OISD) observations.

9. TRANSPORT & SHIPPING DEPARTMENT

1. Verify that the T&S department receives intimation for receipt of material at ports in time and goods are cleared within the time norms allowed by the port authorities.
2. Verify that the report for loss of materials at port/ received in short or damaged in transit are properly maintained and claims are lodged in time and claims are pursued for settlement.
3. Verify if any demurrage/late charges paid on account of delay on part of custom agents/suppliers are recovered/adjusted.
4. Verify that the Exemption Certificate is made available with the Transportation and Shipping Department by the Indentor in time to avoid demurrage payment.
5. Verify that the legal cases are monitored and actions are taken to resolve these cases.
6. Verify cases of payment of custom duty on goods imported under duty exception due to delay/non-submission of Essentiality Certificate.

7. Verify cases of duty draw back refund in respect of equipment/machineries imported for E&P operations and exported after its use.

10. SALES & MARKETING

1. Verify billing is done as per valid documentation.
2. Verify if price maintained in the system for a given billing period is correct.
3. Verify if billing for gas and crude is done in line with the defined schedule.
4. Verify if defaulting customers are tracked and system of recovery is in place.
5. Verify if there is a penalty/interest clause in the contract and the same is being followed.
6. Verify if overdue debts are conveyed to the marketing department.
7. Verify that GST rates and cess are as per government directives and paid to exchequer on or before due dates.
8. Verify tax assessment is done in timely manner.
9. Verify that royalty rates are as per government norms.
10. Verify if contract exist for all customers (private operators) who use the services of the handling and processing crude.
11. Verify if the handling/processing charges are in line with the terms of the customer agreement.
12. Verify billing of compression charges as per the contract in case of gas sales.
13. Verify billing of shortfall in quantity off take as per the Minimum Off take Guarantee (MOG) clause.
14. Verify the duty amount paid for VAP
15. Verify recording meters are calibrated jointly in presence of customers through third party to avoid disputes on delivered quantity.
16. Verify customer are in agreement with supply/billed quantity.
17. Verify adequate control over pending court cases for customers.
18. Verify if directing marketing of gas is in line with government policy
19. Verify the periodic maintenance of operating and controlling equipment for pipeline.
20. Verify transit and process losses are within limits.
21. Verify whether proper product reconciliation is done on periodic basis.

11. OFFSHORE BASINS

1. Verify whether long term plan is prepared for API activities (data acquisition, interpretation and processing) after considering the existing and future workload in respect of both nomination blocks and NELP/DSF/HELP blocks and time norms fixed for API activity.
2. Verify whether annual plan is aligned with the long term plan and examine the justification for variations.
3. Verify parameters and methodology of preparing the Budget and its consistent application

during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations.

4. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) and annual performance score card indicating under/over achievement of KPIs. Examine the justification for non-achievement of any KPIs target. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance in past.
5. Verify whether Service Level Agreement)SLA (was entered into between Basin (users) and service providers (drilling services/assets) before commencement of year for providing the requisite services to the users in time and monitoring and reporting system for its compliance.
6. To verify whether all available manpower and equipments are considered while preparation of annual plan.
7. Verify whether planning is prioritized for the block which are into surrendering stage so as to avoid payment of penalty/surrender of block without executing committed work program.
8. Verify whether the outsourcing is done after due considerations and analyzing the project economics.
9. Verify whether Operating guidelines adhered to.
10. Verify whether all the services, store/spares, etc. of requisite quantity and quality were procured at economical rate in time by following procedure laid down in Material Management Manual of the Company and approval was taken as per BDP.
11. Ensure whether contractual obligations were fulfilled by the service contractors/suppliers and payment to service contractor/supplier was made in accordance with contractual provisions.
12. Verify whether operational performance of all the basins is adequately monitored by the management and corrective actions are taken in case of necessity.
13. Ensure whether appropriate procedure exist for the quality and completeness of seismic data acquired, process and interpreted.
14. Ensure whether adequate data storage facility available for acquired/processed/interpreted data.
15. Ensure whether appropriate procedure exist for the handover of data to processing team and data is adequately secured.
16. Verify whether all owned seismic vessels used for survey operations are properly maintained as per the Preventive Maintenance Plan (PMS), Overhaul/replacement policies of the Company. Analyze the reasons for deviations and its impact on Geophysical activities.
17. Verify the economics for deployment of owned vs. hired vessels after considering efficiency factor and adequacy of skilled manpower.
18. Ensure whether hardware equipment's are calibrated as per schedule and standard as recommended by Original equipment manufacturer (OEM).
19. Verify that adequate insurance of the hardware/ software.
20. Ensure AMC's on Hardware & Software is in place

21. Verify the co-ordination between asset, drilling and mud/cementing services/well stimulation for lining up locations.
22. Verify whether all the cost elements for drilling services involved in drilling of wells are planned at GTO stage
23. Verify that the drilling operations are carried out as per GTO of the well (well plan)
24. Verify that a mechanism exists for monitoring of operations of offshore drilling on daily basis and highlight operational delays on periodical basis.
25. Verify that the cost planned for drilling of different wells are similar/ within limits for wells within the region.
26. Verify that the drilling rigs are optimally utilized and non-productive time is monitored.
27. Verify whether a daily monitoring mechanism exists for tracking and highlighting time lost by chartered hired rigs
28. Verify whether a mechanism exists for monitoring of logging operations on daily basis and highlight operational delays on periodical basis
29. Verify whether logging unit/tools owned / hired by logging section are optimally utilized.
30. Verify whether cost of operations are monitored and a mechanism exists to highlight in case of cost overruns.
31. Verify whether regular maintenance is carried out for each logging unit as per the Annual Maintenance Contract with the service provider.
32. Verify whether mechanism exists for monitoring downtime of work over rigs and addressing the root causes for the same.
33. Verify whether HSE policy was adhere to and HSE audits are conducted as per schedule defined.
34. Verify minutes of competent authority releasing well for drilling based on financial and technical parameters and Geo Technical Order (GTO) prepared before spudding of well

12. OFFSHORE DRILLING SERVICES

1. Verify whether long term requirement (3-5 years) for total numbers and different types/capacities of rigs (Onland and Offshore) were properly assessed by the Company after considering the user's requirement and time norms/guidelines approved by the Company for carrying out different types of drilling activities and approval of competent authority was obtained .
2. Verify whether long term requirement provided by the Users was in line with the target sets in Long Term Plan (LTP) of the Company.
3. Verify whether requisite number of rigs and associated drilling services (Mud, cementing services, etc.) were hired in time at the most economical rate by following Company's Material Management Manual and approval taken as per BDP.
4. Verify parameters and methodology of preparing the Budget for drilling activities and its consistent application during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations and its impact on drilling activities and petroleum operations.

5. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) to drilling services and annual performance score card for non-achievement of any KPIs target and analyze reasons for the same. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance KPIs in past.
6. Verify whether Service Level Agreement (SLA) (was entered into between drilling services (service provider) and assets (service receivers) IMR services/well/basins/before commencement of year for providing requisite drilling services in time and monitoring and reporting system in place to ensure such services was provided.
7. Verify the compliance to the Drilling Operation Manual/SOP of drilling activities of the Company and recorded reasons for major variations.
8. Verify minutes of competent authority releasing well for drilling based on financial and technical parameters and Geo Technical Order (GTO) prepared before spudding of well.
9. Verify whether required quantity and quality of chemicals and mud/barites were received by rigs during drilling to avoid drilling complications.
10. Verify compliance to critical/essential observations of internal technical and energy audit of drilling rigs as well as compliance to external audit.
11. Verify whether payment to the rig contractor and O&M/ repairs of owned rigs were made as per contractual provisions.
12. Verify whether rigs were deployed as per Rig Deployment Plan (RDP) (to avoid any deviation, delay or idling. Verify achievement of target (plan vs. actual) for both meterage and number of wells (exploratory/development/side track/workover) and analyze reasons for deviations.
12. Verify the basis for fixation of drilling efficiency targets (cycle and commercial speed) for both owned and hired rigs internally set by the Company and identify the reasons for deviations and its impact on drilling operations in terms of cost and physical output. Also compare the drilling efficiency between owned vs. hired rigs from point of view Company's policy decision of owning vs. hiring rigs.
13. Verify rig utilization data/report indicating rig productive time and non-productive time and analyze the reasons for controllable non-productive time of rigs and its impact on planned drilling operations. Compare Non-Productive Time (NPT) of rigs with global standard/bench mark.
14. Verify adherence to the maintenance & repair, dry-dock, major-lay-up repair policies as well as repair/overhaul/replacement policy of major critical and essential equipment of Company's owned rigs and its impact on drilling operations.
15. Analyze plan vs. actual time taken for major dry-dock/lay-up repairs of owned rigs and for avoidable delays, impact on cost and physical targets of drilling operations.

16. Verify plan vs. actual utilization of drilling budget under major heads/line items and analyze the reasons for major deviations.
17. Verify availability of standby equipment as per norms to avoid idling of rigs.
18. Verify actual time taken against the norms for Production testing which lead to delay in taking up the next planned well in time and adversely affects the performance of drilling services.
19. Verify that proper records are maintained to show (i) materials drawn by drill site and, (ii) stock/materials lying at drill site and (iii) consumption.
20. Examine the systems and procedures laid down for accounting of materials returned from drill site and ensure the same is effectively implemented.
21. Verify whether adequate skilled manpower of all cadre as per manpower norms were deployed in owned rigs and if not, its impact on drilling efficiency.
22. Verify whether Rig Register is maintained so as to capture the capital repair/up-gradation details including cost incurred for future decision marking.
23. Verify compliance to Health Safety and Environment (HSE) policy of company.
24. Verify the cost benefit analysis carried out for major-layup repairs/up-gradation of owned rigs and improvement in drilling efficiency as against planned.
25. Review the performance of drilling operations by comparing the cost of drilling per meter by owned and charter rigs for both exploratory and development locations.

13. OFFSHORE ENGINEERING SERVICES

1. Verify whether feasibility study for offshore projects was done in line with the documented benchmarks)i.e. time required to complete project, cost estimation of various components of project, areas for outsourcing, estimate quantum/cost of materials/services required for completion of projects, etc..(
2. Verify parameters and methodology of preparing the Budget for offshore engineering related activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure (BE & RE) and analyze the reasons for large variations and its impact on cost overrun/time overrun of engineering project and loss/deferment of envisaged production.
3. Verify whether cost benefit analysis has been done between utilization of company owned resources and outsourcing the work to external service providers.
4. Verify whether cost benefit analysis has been done between purchase and hiring of high cost equipment.
5. Verify whether cost benefit analysis has been done before repairs of any equipment.
6. Verify the basis/process for fixation of annual/quarterly target sets under various Key Performance Indicators) KPIs (to the offshore engineering department and reasons for non-achievement of any KPIs target and its impact on cost, production and safety/environment. Also verify trend analysis of overall score and individual KPIs score awarded for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the actual

performance KPIs in past.

7. Verify whether tenders for engineering works were finalized in time at economical price by following the provisions of Material Management Manual of the Company.
8. Verify whether payment to the project contractors were made as per contractual provisions after certification of particular milestone/completion of project.
9. Verify whether in case of delay on part of project contractor in completion of particular milestone/project, liquidated damages were deducted from milestone payment .
10. Verify whether in case of cost overrun, approval for revised project cost was obtained from the competent authority and analyze the reasons for cost overrun between avoidable and unavoidable reasons and its impact on project viability .
11. Verify the reasons for time overrun)avoidable delays (and its impact on company's hydrocarbon exploitation programme .
12. Verify the adequacy of project monitoring and reporting system.
13. Verify the adjustment of project surplus from total contract cost.
14. Verify the contractual obligation on part of Company and Contractor and their fulfillment and in case of delay its impact on project cost and completion time as against the estimate/schedule.
15. Verify all the imported consignments were cleared in time by submitting the required document without payment of demurrage charges/penalty and by obtaining custom duty exemption.

14.MARINE LOGISTIC OPERATIONS INCLUDING SUPPLY BASE MANAGEMENT

1. Verify whether long term requirement (3-5 years) for different types, capacities and numbers of vessels)OSVs/AHTSs/PSVs (required to perform various types of duties)cargo supply/rig tow/standby(was properly assessed based on deployment of vessels norm per duty station and user's requirements for uninterrupted petroleum operations.
2. Verify basis adopted for norms (number of vessels required per duty station) to arrive at total number of vessels required for logistic operations so as to optimize cost of logistic operations based on improvement in operational efficiency, if any.
3. Verify whether Company hired requisite number of vessels in time at economical rate by following procedures laid down in its Material Management Manual.
4. Verify parameters and methodology of preparing the Budget for Marine related logistics operations and its consistent application during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations and its impact on marine logistic operations.
5. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) related to the marine logistic operations and annual performance score card for non-achievement of any KPIs target and reasons for the same. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether

lower/soft targets for each KPI were set considering the performance KPIs in past.

6. Verify whether Service Level Agreement (SLA) (entered into between marine logistic department (service provider) and assetswell/drilling/services/basins (service receiver) before commencement of year for providing requisite logistic support services in time and monitoring and evaluation system in place.
7. Verify daily/monthly/annual vessels deployment and utilisation reports to see deployment of vessels per duty stations against the approved norm and deployment of each type of vessel for its intended usage to economize cost of operation.
8. Verify whether that there is proper scheduling of vessels and TAT (Turn Around Time) of vessels at port and offshore to economize cost of logistic operation.
9. Verify whether data for different types of vessels for different duty profile was correctly capture in the system from vessels manifest, deck cargo delivery statement, bulk material statement, internal consumption of fuel and water by vessels, etc.
10. Verify the compliance to the Marine Management Manual of the Company by the Company personnel and vessel operators to ensure safety of petroleum operations.
11. Verify Standard Operating Procedures (SOP) (for management of supply base and analysis deviations and its consequential impact on cost and safety of supply base operation as well as petroleum operations.
12. Verify cargo loaded statement and Return on Board (ROB) (statement to verify whether loading of cargo on vessels was as per field requirement thereby reducing the back and forth carriage of ROB and higher Turn Around Time (TAT) (of vessels at base and higher fuel consumption by vessels.
13. Verify system of proper segregation of backload material into usable (unused & repairable) and scarp and its accounting and system of disposal of scrap in time.
14. Verify minutes of periodical meetings held between marine logistic department (service provider) and assets/services (users) for constrains faced by the users in receiving vessel services in time, its impact on petroleum operations and remedial measures taken.
15. Review performance of vessels and payment to vessels contractors were as per contractual provisions.
16. Verify whether storage location was optimally utilized to save cost of operations.
17. Considering the Company's responsibility to supply HF-HSD free of cost to the vessel and rig/specialised vessels operators for internal consumption of vessels/rigs, verify the trend of HF-HSD consumption KL/per day of similar type and capacity of vessels/rigs deployed for similar type of duties.
18. Verify the compliance to preventive maintenance, repairs, dry dock and replacement policies of Own vessels/critical equipment for optimum and economic utilization of vessels.

15. LOGGING SERVICES

1. Verify whether the workload for logging activity was assessed based on the users requirement and reflected in annual plan prepared and approved.

2. Verify the plan vs. actual logging services provided and root cause analysis have been carried out in case of non-achievement of targets.
3. Verify whether the annual plan of services is comprehensive and exhaustive to cover the proposed work program for the logging services for the year.
4. Verify that a detailed unit wise deployment annual plan is in place and approved by concerned personnel and adherence to the same to reduce the non- operating time.
5. Verify parameters and methodology of preparing the Budget for Geophysical activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations.
6. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) and annual performance score card indicating under/overachievement of KPIs. Examine the justification for non-achievement of any KPIs target. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance KPIs in past.
7. Verify whether Service Level Agreement (SLA) was entered into between (users) and service providers before commencement of year for providing the requisite services to the users and monitoring and reporting system for its compliance.
8. Verify monitoring of non- operating time of units and maximize utilization.
9. Verify whether a formal mechanism exists for long and short term planning of logging resources and that resources are hired /desired on the basis of requirements received from assets/basins.
10. Verify whether all the cost elements for logging services involved in the well are planned at GTO stage and monitored during operations.
11. Verify whether timely procurement activities are carried out for smooth flow of materials and also the availability of consumables while conducting operations.
12. Verify whether all procurement has been done in accordance with provisions of MM Manual of the Company and BDP.
13. Verify that the cost benefit analysis has been done between purchases and hiring of the high cost equipment's.
14. Verify that cost benefit analysis has been done before repairs of any equipment.
15. Verify that cost benefit analysis has been done before procuring any item.

16. AIR LOGISTIC

1. Examine whether total number and different types/capacities of choppers required for offshore operations was properly assessed based on any approved norms and considering the user's requirement (assets/services) and approval of competent authority was obtained for the same in time.
2. Verify whether choppers service was made available to users in time. If not, its impact on offshore operations. In this regard examine the monitoring and reporting system in place to

ensure that services provided to the users in time.

3. Review the basis of fixation of various KPIs of air logistics to evaluate performance of air logistic department and its annual performance score card indicating rating awarded under various KPIs and analyze the reasons for not achievement the targets.
4. Verify tender invitation and finalization records to ensure chopper services were hired in time at economical rate by following procedures laid down in Company's Material Management Manual and approval was taken as per BDP.
5. Examine the parameters and methodology of preparing the Budget for air logistic activities and its consistent application during the period.
6. Compare actual expenditure with budgeted expenditure and reasons for large variations and its impact on petroleum operations, if any.
7. Verify whether there is any approved scheduling of choppers to economize the operations.
8. Verify the capacity utilization of choppers to economize the operations.
9. Verify whether chopper services were performed in line with the contract
10. Verify the time log is maintained for choppers for checking time delays.
11. Verify that the movement of choppers is maintained and regularly analyzed to improve the performance.
12. Verify safety audit reports (internal and external) to ensure that all necessary statutory rules and regulations were complied with in chopper operations.
13. Verify payments to the Chopper Operators made in accordance with the contractual provisions.

Quantum of checks/sampling keeping in view the Audit Risks For Oil & Natural Gas Corporation Limited

Sl. No.	Nature of Activities/records	Quantum of audit
1	Administration Records relating to General Admn, Estate and Housing.	10%
2.	Directorate of Personnel (Corporate Office/ Regional Head Office) Records relating to a) Recruitment of staff b) Establishment c) Transfer and postings d) Pay fixation e) Employee Policy (EP) proposals	10% 10% 10% 10% 100%
3.	Manpower Planning	10%

4.	Medical Services (Hospital) (a) Purchase equipment valuing : 1. Rs. 50 lakh and above 2. Below Rs. 50 lakh (b) Purchase of Medicines and other items (c) Empanelment of Chemists and Specialists	100% 20% 25% General review
5.	Secretariat: i) Agenda and Minutes a) Corporation b) Standing Committee vii) Other files viii) Legal cases ix) Arbitration Cases	100% 100% 10% 10% 100%
6.	Vigilance & Security: Files and returns maintained by the vigilance & Security dept.	General review of the major cases in light of CAG's secret letter No.857-110-TA.I (RGL)/76 dated 13 September 1979
7.	Corporate Planning Review of Executive Committee minutes Corporate Plans Correspondence with the Ministry General Correspondence	100% 100% General Review General Review
	Finance & Accounts (i) Bank & Cash Section 3. Cash and Fund Flow statement 4. Bank Vouchers/Cash vouchers 5. Bank Book/Cash Book 6. Bank reconciliation statement 7. Cash Credit and Overdraft	One month in a year One month in a year One month in a year 100% for the month of march General Review
	(i) Central payment Section Records relating to opening of L/C and release payment of foreign exchange in relation to import and other major purchases	Review of one selected month

	<p>(i) Costing Section</p> <p>A. Sales - Review of files regarding prices fixation, sales cases, and other general policy matters</p> <p>B. Well drilling cost section (Project/HQrs)</p> <p>C. Cost records as per Cost Accounting records rules</p>	<p>General Review</p> <p>General Review</p> <p>General Review in the first year and 5% subsequently.</p>
	<p>(i) Sales Section</p> <p>Sales billing and accounting</p> <p>8. From April to February each year</p> <p>9. For March each year</p> <p>10. Correspondence with customers</p> <p>11. General correspondence (Sales policy, circulars etc.)</p> <p>12. Receipts and reconciliation of accounts</p>	<p>10%</p> <p>100%</p> <p>10%</p> <p>Review on select basis</p> <p>General review</p>
	<p>(i) Personal claim section:</p> <p>1. Pay Bill of Class I Officers</p> <p>2. T.A. Bill of Class I Officer</p> <p>3. Bills of Class I Officers, reimbursement of :</p> <p>i) Tuition Fee</p> <p>ii) Medical claims</p> <p>iii) Other if any.</p> <p>1. LTC Payment/Leave encashment of Officers/establishment</p> <p>2. Pay of Establishment</p> <p>3. TA Bill of Establishment</p> <p>4. Bill of establishment of:</p> <p>i) Tuition Fee</p> <p>ii) Medical</p> <p>iii) Others if any</p> <p>1. Bills for contingencies</p> <p>2. Vouchers relating to loan and advance</p> <p>10. Cases of hiring out/leasing of building for</p>	<p>One month transaction</p> <p>Once in 3 years</p> <p>All cases to be reviewed.</p>

	<p>office/residence for staff</p> <p>11. Rent recovery Register</p> <p>12 Service Books</p> <p>13. Leave account</p> <p>14. GPF Advance & Final withdrawal</p> <p>15. General Review of all other records</p>	<p>One month</p> <p>5%</p> <p>5%</p> <p>5%</p>
	<p>vi) Central Accounts and Coordination:</p> <p>Records relating to loans/cash credits of headquarters checking of Analytical Register & monthly accounts of the Projects etc. & JVs</p>	<p>1. General review of the files and scrutiny of JVs for the month of March and</p> <p>2. Loan register to be seen to see adequacy of provision of interest accrued and due as well as, accrued has not due (check should be 100%)</p>
	<p>vii) Internal Audit section</p>	<p>General review of the working of the system and study the reports.</p>
	<p>viii) Corporate Income Tax Section, Dehradun</p> <p>Corporate Tax Assessment</p> <p>Payment of tax including Advance Tax</p> <p>Tax Assessment in respect of foreign companies / firms</p>	<p>100%</p> <p>100%</p> <p>10%</p>
	<p>ix) Budget</p>	<p>General review of the Budget provision/actual expenditure.</p>
	<p>x) Accounts Esstt. Section</p>	<p>10%</p>
	<p>xi) Store Accounts:</p> <p>Central Accounts etc. checking of GRVs, Pricing of GRVs, IVS of Capital items Pricing of inventory etc.</p>	<p>1. Review of one month transactions.</p> <p>2. 5% of the entries in the Stores Ledger should be checked to find out the accuracy of pricing and posting with reference to invoice.</p>
9.	<p>Joint Venture Group, New Delhi</p> <p>New Ventures</p> <p>Progress/ performance of old Joint Ventures</p>	<p>100%</p>

	General correspondence	100%				
		Review on select basis				
10.	Loans and Advances Loans and Advances to outside organizations i) Rs. One crore and above ii) Below Rs. One crore	100% 25%				
11.	Service Contracts Contracts/agreements/Purchases Well Files Drilling Plans Planning and Provisioning Well completion reports Assets/Basins (Onshore & Offshore) Well Services Logistics and transport Award of operation of contracts for Hiring of vehicles O & M of Departmental vehicles including log books	As per quantum prescribed for Contracts Audit 100% 100% 20% General Review General Review General Review 20% 20% 20%				
12.	I. Contracts Audit : All types of contract (MM Dept(Procurement & Service Contracts)/Logistics-Drilling-Well Services-Basins-Assets)					
			Dehradun	Mum bai	Baro da	Project
	i) Below 50 lakh	10%	2%	10%	10%	
	ii) >Rs 50 lakhs but <Rs 1 crore	25%	10%	25%	25%	
	iii) > 1 crore but < 3 crore	60%	30%	60%	60%	
	iv) > Rs.3 crores but < 5 crores	100%	60%	100%	100%	
	v) Rs 5 crore and above.	100%	100%	100%	100%	
	II. GRVS/IVS/stock side.	2%				
	III. Physical Verification Report of capital and stores (Obsolete/non-moving items)	100%				

	IV. Other records - Advance to supplier, Misc. advance for purchases, Purchases book, Inspection of equipment.	5%	
13.	E&C Contracts Mumbai Offshore/Onshore Project and Erection & Constructions etc. for all Regions	i) Below Rs. 50 lakhs	2%
		ii) Above Rs. 50 lakhs below Rs.1 Crore	10%
		iii) Above Rs.1 crore below Rs.5 crore.	50%
		iv) Above Rs.5 crore below Rs.20 crore	80%
		v) above Rs.20 crores	100%
14.	Corporate communications Publications and Advertisements Printing of materials / reports	10%	10%
15.	Investment Above Rs.500 crore	General Review 100%	
	Above Rs.100 but below Rs.500 crore	50%	
	Below Rs. 100 crore	10%	
16.	Geo Science Division Geology & Geo-Physics Work Programme and operational reports of field parties	20%	
	Petroleum Exploration License cases	20%	
	Regional Exploration Board (REXB) Meeting	20%	
	Data Interpretation work	5%	
17.	Geo-data Processing and Interpretation Centre (GEOPIC) Work programme and operational reports	100%	
	Seismic Data Processing	5%	
	Seismic and Log Data Interpretation	5%	
	Hardware & Software Acquisition	60%	
	Seismic Software Development	5%	

18.	Keshav. Dev Malviya Institute of Petroleum Exploration, Dehradun (KDMIPE) Sections: Contracts / Agreements / Purchases Geo-Science Research Group Basin Research Group Special Research Group Research and Development Projects Reservoir Analysis and Management Petroleum Economic and Foreign Appraisal (PEFA) Division Technical Services Group	As per quantum prescribed for contract Audit 5% 5% 5% 20% 5% 5% 5%
19.	Institute of drilling technology, Dehradun Work Programme Research and Development Projects relating to Drilling Technology, Drilling Fluid. Engineering, Cementing and Cementation Material Well Control School Programme Training Programme Correspondence with the Assets/Basins	100% 20% 10% 10% General Review
20	Exploration and Development Directorate, Dehradun Work Programme Exploration and Development Policies Data Interpretation and Analysis Reserves Estimation	100% General Review 10% General review
21.	Operation Services (Surface and Sub-surface) Development and Re-development Schemes/Projects Construction and maintenance (C&M) Works Other activities viz. Production Testing, Work over Operations etc.	100% As per quantum prescribed for Contract audit Review on select basis
22	Information technology (IT) INFOCOM Award for rate contracts for PCs and other items New schemes /contracts including maintenance contracts	100% review on select basis

23	Information Consolidation for Efficiency (ICE), New Delhi Award and maintenance of initial contracts New schemes /contracts	100% Review on select basis
24	Directorate of Equipment Management, Dehradun Technical Audit Reports Correspondence with the Assets / Basins on issues related to plant / equipment General correspondence	20% Review on select basis General Review
25.	Transport and Shipping Office Clearance of materials from customs including bill of entry Claims for refund of custom duty Insurance claims	10% 100% 100%
26	Steering Committee (SC)/Executive Purchase Committee (EPC), New Delhi Policy issues Contract and Purchase cases	100% 100%
27.	Exploration Contract Monitoring (EXCOM) Group, New Delhi Exploration Contract award monitoring Progress Reports of discovered fields Data package for exploration contract bids Correspondence with Govt. and Directorate General of Hydrocarbons	100% 100% 10% General Review
28	Registered Office, New Delhi Receipt of payments against sales Pricing Circulars Advertisements and publications Award of contract for hiring of Hotels Award of contract for hiring of guest Houses Award of contract for hiring of Taxis and other vehicles Correspondence with the Ministry and Subsidiaries.	25% of selected one month's transactions 100% 10% 50% 50% 50% General Review
29.	ONGC Academy (Institute of	

	Management Development), Dehradun Training Programme Engagement of faculty Maintenance of Hostel Alliance with outside organizations	10% 10% 10% 100%
30.	Regional Offices at Kolkata and Nazira As per quantum prescribed for different activities (viz. Administration, Finance, Purchases, Support services etc.)	
31	Institute of Reservoir Studies Ahmedabad and all other Institutes.	i) General Review of Project Scheme / Training undertaken ii) General Review of files and Sections iii) Test check of quantum of success of drilled wells.
32.	TITAN, New Delhi (Telemetry instrumentation, Telecommunication Automatic, Network).	General review of the records of the Project
33.	Project Section: 1. Drilling* 2. Production 3. Chemistry 4. Electrical 5. Auto 6. Geology 7. Geo-physical 8. Cementing 9. Reservoir 10. Mechanical 11. Transport	20% of the files (as fixed against Directorate of Operations) from item 1 to 11. * 100% review of wells hiring cost report and utilization of Rigs
34.	Performance Monitoring Group, Dehradun Review of Work Program Performance contract and monitoring	10% Initially 100% and subsequently on selection basis.
35.	Treasury Management Group, New Delhi Investment of Surplus funds Files relating to policy issues General Correspondence	60% 100% Review on selection basis

B OIL INDUSTRY DEVELOPMENT BOARD

(1) ADMINISTRATION:

1. Whether salary and allowances and such conditions of services of OIDB employees in respect of leave, pension, provident fund and other matters as may, from time to time be fixed by the Central Government and the other committee/Board constituted under sub section (6) of section 3 of OI Act 1974, are being followed by the OIDB?
2. Whether Oil Industry Development Board Employees' (General conditions of Service) Rules 1978 are being followed strictly by the OIDB?
3. Whether minimum Board meeting (not less two) in a year are being conducting by the OIDB as per the section 9 of the Oil Industry (Development) Rules 1975?
4. Before any meeting of the Board, notice of the time and place of the intended meeting signed by the Secretary is being sent to the Central Government within the time (at least seven days before any meeting)?
5. For a meeting of the Board unless there are present at least one third of its total strength of member of three members whichever is higher, no business shall be transacted at a meeting. In this regard, quorum is followed by the OIDB?
6. Whether copies of such records transacted by the Board in the meeting are being forwarded to the Central Government regularly?
7. Whether decisions taken in the meetings of OI Board are being implemented and adhered to?

(2) FINANCE AND ACCOUNTS

1. Before making grants or advancing loan to any organisation/institutions, whether OI is ensuring that the loanee institution/organisation is engaged in the oil industry?

2. It may please be ensured that repayment was within a period not exceeding twenty-five years and interest rate are floated in the market or as defined by the RBI.
3. Before making grants or advancing loan to any organisation/institutions, whether OIBD has clearly mentioned such terms and conditions as agreed by the loanee institutions/organizations and same approved by the competent authority?
4. Before rendering any assistance to any oil industry, whether OIBD is being issued such direction/instruction on the behalf of Central Government and self-satisfied to assistance?
5. Whether OIBD has taken appropriate action as per the power conferred by the section of the Oil Industry (Development) Act 1974 against the concern oil industry or other person who is unable to pay its or his debts?
6. Whether OIBD Board carrying out such directions as issued by Central Government time to time for the efficient administration.
7. Whether OIBD Board followed such rules as made in this in respect of borrow on the security of the Oil Industry Development Fund or any other asset?
8. Whether Board is maintaining proper accounts and other relevant records and prepare an annual statement of accounts in such form as prescribed by the Central Government in consultation with the CAG of India
9. Whether the Board has obtained prior approval of the Central Government before investing any funds in the equity capital of any company or organization?
10. Whether the Board has obtained prior approval of the Central Government before makes a grant to any company or organization?
11. Whether the Board has obtained prior approval of the Central Government before write-off losses more than 20 lakhs?
12. It may please be ensured that no expenditure should be incurred until the budget is approved by the Central Government.
13. Whether expenditure has been classified under heads and sub-heads as specified in Schedule-I of Oil Industry (Development) Rules, 1975.
14. The Board should be keep proper books of accounts including a journal and ledger with reference to all assets and liabilities of the Board, all sums or money received and expended by the Board and the transaction in respect of which the receipt and expenditure, disbursement and recoveries of loan and advances etc. This may please be ensured.
15. Whether funding and other activities of Indian Strategic Petroleum Reserves Limited (ISPRL), a 100 % subsidiary of OIBD, are regularly monitored by OIBD?

(3) PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.

6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee.

(4) CVC

1. Whether Board made deposit of funds in the respective banks or their wholly owned subsidiaries as decided by the Board properly in the interest of the OIIB?
2. Whether the Board is submitting such information as the Central Government require time to time in respect of any business of the Board?
3. The OIIB also generates its internal resources by way of interest income on loans given to various oil sector companies and short-term investment of surplus funds in Fixed Deposit Receipts. In this regards, whether OIIB had been keep proper records/supporting documents?
4. OIIB has been providing loans to oil and gas PSUs for gas and oil pipeline projects, setting up of new refineries, quality improvement of existing refineries etc. How, OIIB has ensured that the disbursing loan is being utilized properly on which loan has been provided?
5. OIIB has been providing assistance through grants to its five regular grantee institutes namely DGH, OISD, CHT, PCRA and PPAC. In this regards, whether OIIB is obtaining utilization certificate as prescribed by the Board from these grantee institutions regularly?
6. OIIB has also been providing need based advances to Oil sector for various development activities/R&D activities. How, OIIB has ensured that the advances is being utilized properly.
7. In addition to the grants to its regular grantee institutions, OIIB also provides grants for promotion of R&D in the oil and gas sector. Besides, to promote world class education, training, and research requirements of the petroleum & energy sector, OIIB has provided grant to Rajiv Gandhi Institute of Petroleum Technology (RGIPT) for its projects at Sivasagar, Assam and Jais, Rae Bareilly. Mechanism in place in OIIB to ensure that the grants/funds to these organizations/institutes are utilized properly?
8. The MoPNG has set up a Hydrogen Corpus Fund (HCF) on the use of hydrogen as an auto fuel with a corpus of Rs.100 crores with contribution from Oil PSUs/OIIB, OIIB is maintaining the Accounts of the HCF. CHT is the nodal agency for identifying and monitoring of hydrogen projects. How OIIB has ensured that the allocation fund for the projects under HCF is being properly utilized

C PETROLEUM PLANNING & ANALYSIS CELL

(1) ADMINISTRATION:

1. Whether meetings of the Governing Body take place at the regularly as per define periodicity for periodic review of functioning of DGH?
2. Whether decisions made in the meetings of the Governing Body are adhered to and implemented?
3. Whether minutes of meetings of Governing Body are submitted to MoPNG?
4. Whether PPAC submit its Work-programme to Governing Body for approval within timeframe given for it.
5. Whether Governing Body meeting were held as mandated?
6. As PPAC is manned by the staff drawn on deputation from the Oil and Gas PSUs, whether approval of competent authority is taken before deputation/repatriation of personnel?

(2) FINANCE AND ACCOUNTS

1. Whether the requirement of funds to be obtained as grant from OADB was assessed keeping in view of its various activities?
2. Whether request for requirement of grant from OADB was given well in advance?
3. Whether the grant received from the OADB was properly utilised for the intended purpose and utilisation certificate for grant was given to the OADB in time?
4. Whether the Fixed Asset Register was maintained?
5. Whether physical asset verification was conducted periodically and issues raised therein addressed?
6. As the PPAC generate various periodic reports/data on Oil and Gas Sector, how the authenticity of these data from used to generate the reports was ascertained?
7. Whether data as mentioned against No 9 above was primary data or secondary data?
8. Whether any development in domestic oil and gas sector is reported to Ministry of Petroleum and Natural Gas?
9. Whether analysis of domestic and international energy markets is conducted in-house or outsourced?
10. Review of the methods used for analysis of trends in prices of crude oil, petroleum products and natural gas and their impact on the oil companies and consumers to assess their authenticity may be attempted.
11. Whether maintenance of information data bank regularly monitored and updated by PPAC?
12. Whether allocation/supply of domestic natural gas to CGD entities for CNG (transport) and PNG (domestic) segment as GoI guidelines of 2014?
13. Whether PPAC within completion of 20 days of half year submit the average consumption of gas by each CGD entity in CNG (transport) and PNG (domestic) segments to GAIL?
14. Whether GAIL is supplying domestic gas 10% over and above the 100% requirement of CNG (transport) and PNG (domestic) of individual CGD entity calculated as per the last half yearly consumption?
15. Whether it is ensured that prorata cuts not to be applied on supply upto a maximum of 5000 scmd to small consumers having allocation of domestic gas upto 50,000 scmd and 1.1 mmscmd if APM gas allocated to TTZ?
16. Whether GAIL is submitting the compliance report to the MoPNG after completing the exercise of allocation of gas?

17. Whether gas is supplied at uniform base price to each CGD entity?
18. Whether additional requirement of gas, if any between the two review periods over and above the domestic gas being supplied is sourced by individual CGD entities?
19. Whether prior permission of MoPNG is taken before making supply of domestic gas under the above guidelines to any new CGD entity/any new geographical area of an existing CGD entity?
20. Whether GAIL submit statement to the competent authority for cuts imposed on non-priority sector for meeting the requirement of CNG (transport) and PNG (domestic) segments?

(3) PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee
7. Review of various policies/guidelines such as Freight subsidy policy of 2002/policy related to PDS kerosene & domestic LPG of 2002 etc. which were issued by the Government of India for execution may be undertaken.

D OIL INDUSTRY SAFETY DIRECTORATE (OISD)

(1) ADMINISTRATION:

1. To ensure proper implementation of the various aspects of safety in the oil & gas Industry in India, GOI had set up a Safety Council at the apex under the administrative control of MoPNG. The OISD assists the Safety Council. It may be verified whether performance of Safety Council was reviewed periodically?
2. Whether OISD is being payment towards deputation allowance as per the Rules and Regulation of Govt. of India
3. Whether the Delegations of Powers to Executive Director of OISD has been reviewed /revised.

(2) FINANCE AND ACCOUNTS

1. Oil Industry Development Board (OIDB) is being released grants to OISD on annually basis. Whether the OISD has submitted the utilization certificate of allocated fund on timely.
2. Whether the expenditure incurred on the seminar/workshop/training/ are being captured proper in the book of accounts of OISD.
3. Whether physical verification of fixed assets is being carried out by OISD as per the GFR?
4. Whether discrepancies, if any, brought out by Physical Verification Report were being addressed regularly?

(3) FOCUS AREAS AND MAIN ACTIVITIES OF OISD:

1. Whether OISD has reviewed their OISD standards/guidelines and updated/revised time to time to incorporate the latest technological developments?
2. OISD carried out periodic safety audits of all types of Oil and Gas Installations with their OISD standards. In this connection, whether OISD has any mechanism in place to monitor the compliance by the concerned stakeholders with the OISD standards.
3. OISD also carried out pre-commissioning safety audits of Greenfields projects across the oil and gas industry. In this connection, whether OISD is being obtaining final commissioned report and ensured that their compliance has been followed by the units
4. OISD investigates as well as participates in investigation of major incidents to analyse root cause of the incident. In this connection, whether the OISD is being maintained data bank of incident of the oil industry and analysed areas of concern?

PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee

E PETROLEUM CONSERVATION RESEARCH ASSOCIATION (PCRA)

(1) ADMINISTRATION:

1. The Executive Committee, under the supervision and directions of the Governing Body is primarily responsible for implementing the plans and programmes of the PCRA and for promoting the aims and objectives of the Society. In this regards, whether the plans/programme as laid down by PCRA is being implemented and aims and objects have been achieved in particular period?
2. PCRA is entrusted with the task of creating awareness amongst the masses about the importance, methods and benefits of conserving petroleum products and emission reduction. How, PCRA ensured that its efforts are leading to improvement in quality of life?
3. It may be verified whether PCRA has prepared any annual work programme/activities to be carried out in the particular year(s) for efficient energy utilization and environment protection leading to improvement in quality of life?
4. PCRA promotes research and development activities by sponsoring projects aimed at petroleum

conservation and environment protection. Whether the projects towards promotion of research and development activities are being implemented properly and their targets achieved?

(2) FINANCE AND ACCOUNTS

1. Whether the expenditure incurred on the seminars/workshops/trainings etc. are being captured properly in the book of accounts of PCRA.
2. PCRA also sponsors R&D projects for petroleum conservation and environment protection through development of fuel efficient technologies. It may be verified whether the project developer(s) has submitted the progress report(s) with statement of expenditure regularly as per the terms and conditions laid down?
3. It may be verified whether above mentioned project(s) was being monitoring by the PCRA?
4. Whether physical verification of fixed assets is being carried out by PCRA as per the GFR?
5. Whether discrepancies, if any, brought out by Physical Verification Report were being addressed regularly?

(3) FOCUS AREAS AND MAIN ACTIVITIES OF PCRA

1. Whether PCRA was conducting Energy Audit for verification, monitoring and analysis of usage of various form of energy consumed by industrial units regularly?
2. Whether the observations and recommendations contained in the Energy Audit Report of PRCA are being addressed and implemented by the concerned industrial units?
3. PCRA is conducting Fuel Oil Diagnostic Studies (FODS) of industrial unit for verification, monitoring and analysing usage fuel oil consumed by it. In this regards, whether any mechanism was in place to ensure implementation of the recommendations, if any, of these studies?
4. PCRA is being imparting training, industrial workshop/seminars/technical meets for sharing our knowledge and experience of best practices for improving energy efficiency in industries. Whether training programme/workshop were approved by the competent authority and feedback/suggestion were obtained from the individual for improving in energy conversation?
5. PCRA has empaneled Energy Auditing Firms providing the services to the various industries. Whether the approval of the competent authority for selection/deletion of such firms was obtained and time to time reviewed of empaneled energy auditing firms.
6. Whether performance of the above mentioned empaneled auditing firms was being reviewed periodically?
7. MoPNG has constituted a Steering Committee in November 2017 to formulate an action plan and monitor development of fuel economy norms for Light Commercial Vehicles (LCVs) and Medium Commercial Vehicles (MCVs). In this connection, whether PCRA has developed the norms for LCV/MCVs.
8. How PCRA ensured that the approved R&D project have achieved their intended objectives?

(4) PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?

2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee

F INDIAN STRATEGIC PETROLEUM RESERVES LIMITED (ISPRL)

(1) ADMINISTRATION

1. Whether Limits of Authority Manual is followed by the employees of ISPRL for day to day activities?
2. Whether officers of ISPRL are exercising authorities not commensurate with their responsibility or seeking approvals from authorities higher than necessary?
3. Whether ISPRL Board meeting held on regular basis?
4. Whether the approval of ISPRL Board taken if any item is not covered in the Manual?
5. Whether the approval of Executive Committee is taken if any item is within the policy but not covered in the manual?
6. Whether decisions taken on urgent matters during the intervening periods of holding of meetings of Board is rectified by the Board?
7. Whether all the proposals are put up to Board with all the material facts?
8. Whether all the procurement procedures are complying with guidelines of the Chief Vigilance Commissioner (CVC)?

(2) FINANCE & ACCOUNTS

1. Whether all powers to incur expenditure shall be within the approved budget?
2. Whether approval of competent authority is taken to the expenditure above ₹ 25000/- is taken?
3. As the Unit Head may exercise their discretion in emergencies such as fire, flood or major accidents to avoid further loss to persons and property, in this regard whether the matter was reported in writing to the appropriate authority and obtain post facto approval?
4. Whether for creation of posts on regular basis, approval of Board is taken?
5. Whether the appointment of CEO & MD is approved by the competent authority?
6. Whether for deputation/repatriation of personnel other than CEO&MD, Dy. CEO, CFO & Company Secretary against sanctioned posts is approved by the competent authority?
7. Whether the engagement of consultants/advisors on monthly payment basis is approved by the competent authority?
8. Whether for engagement of Foreign experts for ISPRL for specific assignments is approved by the competent authority?

9. Whether inventory procurement and replenishment is done through an empowered committee constituted by the Government?
10. Against the Grant in add received from OADB, whether ISPRL had issued the equivalent amount of equity shares to OADB?
11. Whether proper book entry against the equity shares issued to OADB is reflected in the books of account of ISPRL?
12. Status of creation of four more storage locations at Chandikhol (Odisha), Bikaner (Rajasthan), Rajkot and Padur which were underway with the submission of a Detailed Feasibility Report (DFR) by EIL, present status of the same needs to be verified?
13. Whether Operation and Maintenance expenditure is borne by the Government of India through the GBS scheme?
14. Whether inventory for fixed assets is maintained at site is verified once in a year and the outcome of the verification recorded in the corresponding register? Further, discrepancies, if any, should be promptly investigated and brought to account of competent authority?
15. Whether Gross Budgetary Support (GBS) towards Operation and Maintenance cost (excluding the cost of security) which is being provided by the MoPNG is properly utilized with the approval of competent authority?
16. Whether as per Joint Ownership Agreement signed (April 2017) between ISPRL and HPCL all the Operation & Maintenance cost including manpower costs are shared between the two?

(3) PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee

G DIRECTORATE GENERAL OF HYDROCARBONS

(1) ADMINISTRATION:

1. Whether meetings of the Administrative Council/Advisory Council take place at the regularly as per define periodicity for periodic review of functioning of DGH?
2. Whether decisions made in the meetings of the Administrative Council/Advisory Council are adhered to and implemented?
3. Whether minutes of meetings of Administrative Council/Advisory Council are submitted to MoPNG?
4. As DGH is manned by the staff drawn on deputation from upstream and downstream Public Sector Undertakings like ONGC, OIL, IOCL, BPCL, HPCL and GAIL, whether approval of competent authority is taken before deputation/repatriation of personnel?

(2) FINANCE AND ACCOUNTS

1. Whether the requirement of funds to be obtained as grant from OADB was assessed keeping in view of its various day to day activities?
2. Whether request for requirement of grant from OADB was given well in advance?
3. Whether the grant received from the OADB was properly utilised for the intended purpose and utilisation certificate for grant was given to the OADB in time?
4. Whether DGH after approval of competent authority submits the monthly expenditure statement and grant request to OADB for release of grants?
5. Whether proper entry in the books of account of DGH of the debit note received from the concerned Oil PSU monthly remuneration to the staff is captured?
6. If there is excessive expenditure over the budgeted expenditure whether approval of competent authority is taken with proper justification?
7. Whether the Fixed Asset Register was maintained?
8. Whether physical asset verification was conducted periodically and issues raised therein addressed?

(3) MAIN ACTIVITIES OF DGH

1. As DGH scientists remain on board at all the seismic vessels and deep water drilling rigs during operation and DGH geophysicists accompany all raw / field seismic and G.M. data whenever it leaves the country for processing and interpretation, whether periodic report for the same prepared and submitted to the competent authority?
2. Whether Budget Estimate (BE) and Revised Estimate (RE) for various physical activities of DGH are approved by the competent authority?
3. Whether DGH evaluate the hydrocarbon reserves discovered and estimated by the operating companies and submit the result of evaluation to the competent authority?
4. Whether DGH advise the Government on offering of acreages for exploration to companies as well as matters relating to relinquishment of acreage by companies?
5. Whether DGH advise MoPNG on Exploration Strategies & Production Policies?
6. Whether DGH provide technical advice to the MoPNG on issues relevant to the exploration and optimal exploitation of hydrocarbons in the country?
7. As DGH is technical advisor to MoPNG on issues related to exploration and optimal exploitation of oil and gas - Monitoring of PSCs as Government representative to achieve exploration targets and optimal exploitation of hydrocarbons in the country and technical advice on preparation of

- five-year plans. But if at any point of time DGH is unable to advise on particular matter, whether there is any other alternative mechanism is available to seek out such problem?
8. Whether DGH reviews the exploration programs of companies operating under Petroleum Exploration Licenses granted under Oilfields (Regulation and Development) Act, 1948 and the Petroleum and Natural Gas Rules, 1959 with a view to advising Government on the adequacy of these programs?
 9. Whether DGH timely issue the Essentiality Certificates for import of goods and services used in E&P sector to avail custom duty concessions?
 10. Is there any monitoring mechanism in-place in DGH to ensure that Essentiality Certificates issued for import of goods and services were used for the intended in E&P activities?
 11. In case of any instance of deviation to use imported goods and services, custom duty is paid for, before deviation of imported goods and services?
 12. Details of efforts made by DGH in respect of Exploration & Development of non-conventional resources such as Gas Hydrate, Shale Gas/Oil and Oil Shale to augment hydrocarbon production in the country?
 13. Details of efforts made by DGH to regulate the preservation, upkeep and storage of data and samples pertaining to petroleum exploration, drilling, production of reservoirs etc. and to cause the preparation of data?
 14. Whether DGH review and audit concurrently the management of petroleum reservoirs by operating companies and to advise on any mid-course correction required to ensure sound reservoir management practices in line with the optimal exploitation of reserves and the conservation of petroleum resources?
 15. Whether DGH review the development plans for commercial discoveries by hydrocarbon reserves proposed by the operating companies and advise Government on the adequacy of such plan and the exploitation rates proposed and matters relating thereto?
 16. Whether data maintained by National Data Repository (NDR) is validated, stored and maintained to ensure the availability of reliable E&P data to the stakeholders?
 17. Whether NDR facilitate efficient data reporting, data exchange and trading among existing stakeholders?
 18. Did NDR provide data for processing, interpretation and visualization to the stakeholders?
 19. Details of measures in place to ensure safety, security and confidentiality of data maintained and stored in NDR.
 20. Whether all the private companies and PSUs are submitting the data generated in the blocks to DGH within stipulated timeframe?
 21. Whether approval of competent authority approval was obtained before sharing of data maintained in NDR/DGH with the users?
 22. Whether Exploration and Exploitation of Coad Bed Methane (CBM) from areas under Coal Mining Lease allotted to Coal India Limited and its subsidiaries is per laid down procedures, rules, regulation and law etc.?
 23. Whether exploration and exploitation of CBM enhancement the availability of natural gas and reduce the gap in demand and supply of natural gas are in line with decision of Government's initiatives of 'Ease of Doing Business' & reducing the hydrocarbon import?
 24. Whether with the development activities for exploration and exploitation of CBM gas reserves are able to create employment opportunities in CBM operations?
 25. Whether any policy framework is prepared for exploration and exploitation of unconventional hydrocarbons such as Shale oil/gas, Coal Bed Methane (CBM)?

26. Contractor while exit from the CBM blocks had fulfilling all the terms and conditions of the contract?
27. In respect of CBM contract, whether extension of the phase is given in Development phase on account of getting Government approvals/permits etc. as per PSC provisions?
28. Whether contractual issues in respect of CBM is resolved under ECS?

(4) PROCUREMENT OF GOODS AND SERVICES:

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.
8. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee

H CENTRE FOR HIGH TECHNOLOGY (CHT)

(1) ADMINISTRATION

1. Whether required Governing Council (GC) meetings were held as per the defined periodicity?
2. Whether proper communication with venue and date was given to the stakeholder well in advance for schedule of the Governing Council (GC) meeting?
3. Whether the meetings of the Executive Committee were held as per defined periodicity?
4. Whether proper communication with venue and date was given to the stakeholder well in advance for schedule of the Executive Committee meeting?
5. Whether the directions given in the Governing Council (GC) meeting was addressed in the Executive Committee meeting?
6. Quorum was maintained for Governing Council/Executive Committee meeting?
7. Whether the minutes of the meetings of Governing Council/Executive Committee were documented and decisions made therein were adhered to?

(2) FINANCE AND ACCOUNTS

1. Whether the requirement of funds to be obtained as grant from OADB was assessed keeping in view of its various activities?
2. Whether request for requirement of grant from OADB was given well in advance?

3. Whether the grant received from the OADB was properly utilized for the intended purpose and utilization certificate for grant was given to the OADB in time?
4. Whether the Fixed Asset Register was maintained?
5. Whether physical asset verification was conducted periodically and issues raised therein addressed?

(3) FOCUS AREAS AND MAIN ACTIVITIES OF CHT

1. Mechanism in-place in CHT for performance Evaluation & Monitoring?
2. How Benchmarking and Performance Improvement of PSU refineries through special studies is being done?
3. Details of efforts made by CHT towards Energy Efficiency Improvement and their outcome.
4. Details of efforts made by CHT towards Product Quality Improvement and liaison with Bureau of Indian Standards and their outcome.
5. Details of coordination activities of CHT with Scientific Advisory Committee (SAC) on Hydrocarbons of MoPNG for Promoting Research & Development in Downstream Sector.
6. Any long-term strategic studies for technological improvement/upgradation/modernization etc. conducted and considered for implementation?
7. Whether CHT periodically shared its best practices through Activity Committee Meetings on Major Areas of Refinery Operations?
8. Details of Refinery Technology Meet conducted for Information and Knowledge dissemination.
9. Whether CHT provided technical Support/Assistance to MoPNG as and when required?
10. Whether Scientific Advisory Committee is constituted every three years by MoPNG?
11. Whether meetings of the Scientific Advisory Committee held on regular basis?
12. Whether proposals received for research & development from various organizations/academic institutions/PSUs etc. are presented before Scientific Advisory Committee on Hydrocarbon of MoPNG for recommendation?
13. Whether progress of projects relating to technological improvement/upgradation/modernization are reviewed regularly?
14. Whether for each project, a commercial partner from oil PSU is involved for commercialization and use of developed know-how?
15. Whether MoU was signed with Participating Agency (ies)?
16. Whether mechanism of inviting research proposal through Expression of Interest route followed consistently since its introduction in July 2016?
17. Whether proposals for R&D projects are taken up in the identified areas for grant-in-aid and aimed at development of new product or process or major improvement in an existing process or product with attractive commercialization potential?
18. Whether proposals for R&D projects are invited by CHT through EOI twice a year?
19. Whether due procedure is followed while inviting proposals for R&D projects by CHT?
20. As the partial financial support is provided by CHT to cover development cost of pilot plant etc. whether approval of competent authority is taken?
21. Whether eligibility criteria of the participants in the EOI is duly verified?
22. Whether proposals invited for various projects are duly evaluated?
23. Whether additional information, if required, is sought from the applicant wherever necessary?
24. Whether CHT signed the required documents with participating agencies?

25. Whether monitoring mechanism is in-place to assess the progress of the projects?
26. Whether grants-in-aid is released after the approval of competent authority?
27. Whether competent authority is appraised about the progress of the projects?
28. Whether annual budget of CHT is approved by competent authority?
29. Whether accounts of CHT are audited annually by qualified auditor appointed for the purpose by the competent authority?
30. Whether inventory for Physical assets and consumable goods & materials shall be maintained and verified at least once in year?
31. Whether verification of the assets and consumable goods & materials is made in the presence of the officer responsible for custody of the inventory?
32. Whether certificate of verification along with the findings, are recorded in the stock register?
33. Whether discrepancies, including shortages, damages and unserviceable goods, if any identified during verification is brought to the notice of the competent authority for appropriate action?

(4) PROCUREMENT OF GOODS AND SERVICES

1. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
2. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
3. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out on the basis of prevailing market rates, last purchase prices.
4. Whether bids were invited under two-bid system?
5. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
6. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
7. Whether it was ensured that the bidder was not banned/black listed/suspended in earlier contracts by the organization or any other company/organization.

PART -II

CHECKLIST FOR DOWNSTREAM SECTOR

Downstream Companies Audit

The downstream sector of the oil and gas industry involves the refining of the crude oil and/or raw natural gases obtained in the upstream sector as well as selling or distributing the products obtained. This includes facilities such as petrochemical plants, oil refineries, natural gas distribution companies, retail outlets (i.e. gas stations), etc. Many products are derived from the refining of crude oil and these may include diesel oil, liquefied petroleum gas (LPG), asphalt, petroleum coke, gasoline, fertilizers, antifreeze, plastics, rubbers, pesticides, synthetic rubber, jet fuel and many more.

The major activities in the downstream sector include:

- Refining
- Transport to retail facilities
- Marketing the finished products

1.Audit Issues relating to Refining

Crude is the main input for producing refined petroleum products. Crude purchase may be indigenous or imported. The major elements of the cost of the crude purchase includes the cost of crude, freight, customs duty, demurrage, wharfage or the port trust dues, ocean loss, other taxes and duties, insurance, etc.

(a) In respect of **cost of crude**, the audit could verify the following issues:-

1. Whether the crude purchase of imported/ indigenous crude is calculated as per the crude purchase agreement.
2. Whether the quantity received as per the crude intake certificate corresponds with the surveyor's report.
3. Whether in case the difference in the quantity loaded at the port of loading and the quantity received at the destination port is more than the specified limit, claim for transit loss (Ocean loss) is made with carrier as per the terms of the Chartered Party agreement.
4. Whether the comparison of the on board quantity at the destination port with actual shore receipt has been made to ascertain the difference as a percentage of the Bill of Lading quantity. If the percentage so calculated is more than the specified limit, whether the carried quantity, if any, has been discharged in the next voyage or recovered from the carrier.
5. Whether the difference is claimed from the supplier in case the supplier accepts the protest note.

6. The Entry Tax, handling and survey charges and their accounting
7. Whether in case of imported crude, payment is made for net Bill of Lading quantity.
8. Whether there is an adequate system of monitoring the due dates for payment of crude purchase whether the same is functioning properly.
9. Whether the payment of cost of imported/ indigenous crude is made within due dates.
10. Whether correct exchange rate has been adopted while utilizing the buyer's credit.
11. Whether correct exchange rate have been adopted for imported crude.

(b) Freight

Crude is generally transported through oil tankers of shipping companies and the freight is payable according to the terms of the contract of signed and entered into with the shipping companies.

In respect of freight, the following would be seen in audit-

1. Examine the arrangements as regards transportation of crude based on terms of the purchase contract like FOB, C and F, Time Chartered Vessel to verify whether the payment of freight made to shipping company is as per the contract of agreement signed and entered.
2. Verify whether dues have been properly computed for C and F vessels and Chartered Vessels.
3. Verify whether the dead weight freight paid is as per terms of agreement.
4. Verify computation of address commission and commission payable to private/ Government agencies.
5. Verify whether the payment is made within stipulated time.
6. Verify whether the exchange rate adopted for calculation of freight is as per the chartered party agreement for the Voyage.
7. Verify whether provision for liability has been made for the amount due at the end of financial year.

(c) Demurrage

Demurrage refers to the compensation payable by the Refinery to the shipping company in case of any delay in unloading crude from the vessel, over and above the lay time as stipulated in the contract. The holder of the Bill of Lading is required to pay demurrage at the agreed rate to the owner of the vessel.

In respect of demurrage, the auditor would need to verify:

1. The exchange rate adopted for payment of demurrage is as per the chartered party agreement
2. The reasons and the calculation of excess hours for which demurrage payment is made from the

shipping documents given by the carrier have been justified and approved by competent authority.

3. Whether the payment is withheld if the carrier makes the claim after the stipulated period, as per the Chartered Party agreement.

(d) Wharfage

Wharfage on crude, both imported and indigenous unloaded at the port location, is payable as per respective Port Trust rate.

In this regard the audit may verify the following points-

1. Whether the rate is paid as per terms of contract/ MOU signed with port trust authorities.
2. Whether the wharfage is paid for the gross quantity of crude discharged by the tanker as shown in the crude intake certificate.
3. The provisional amount deposited with port trust is adjusted against the final payment for each vessel.
4. Whether periodic reconciliation of current account with port trust as per the current account monthly statements and general ledger is done.

(e) Insurance

Insurance is arranged with insurance companies for an open insurance cover for crude oil shipments while in transit from foreign load points or coastal loading points till the crude oil is actually discharged at the refinery.

While auditing the insurance aspect, the auditor would check the following:

1. Whether the provisional tanker details are intimated to the insurance company before the actual loading takes place as per the terms of the marine open declaration policy.
2. Check the calculation of insurance premium with regard to the FOB quantity, freight and insurance and rate of insurance.
3. Whether sufficient balance is maintained with the insurance company to ensure that the crude in transit is always covered.
4. Verify that insurance claims have been lodged appropriately and in time. Their follow up till final settlement is also required to be checked for timeliness and correctness.
5. Confirm whether any no-claim bonus in case of nil - claim, has been accrued and if so, whether

claimed in time. This is generally applicable in case of mega risk policies, since basic amount deductible in the policy claim is kept substantially high; hence the number of claim would normally be few or nil.

(f) Custom Duty

Customs Duty is paid on imported crude at the prescribed tariff rate. In case there is bonded storage facility, duty is payable only at the time of removal of crude oil for processing/ refining. In this regard the auditor may check the issues given below:

1. Assessable value on the basis of which customs duty is paid has been calculated with regard to FOB cost, insurance, freight and landing charges.
2. The actual cost of crude paid is considered at the time of finalization of customs duty payments.
3. The sum of the quantity drawn for production as per the Ex-Bond filed on the various dates is equal to the quantity as per the crude intake certificate for each shipment
4. Appropriate distinction is made between indigenous crude and imported crude, as customs duty is applicable only for imported crude. The payment is made as per the customs duty rates applicable as on the date when the Ex-Bond is filed with the customs authorities

Audit of other issues in refining

(g) Licensing

The audit could verify the various licenses issued under Petroleum Act and Rules, Gas cylinder rules, Pollution Control Board license for air-consent, water consent, hazardous waste management license, factory license for their validity and whether all such prescribed limits/values are being observed in refinery. The renewal of such licenses whether done in time and whether any fine/penalty has been paid for violation may also could be seen in audit.

(h) Raw Water Facility

Audit could broadly, check the source of raw water and whether the usage is economically done, whether the required levies like right of way, insurance charges, raw water cess etc., have been paid, AMC entered with regard to raw water facility etc.

(i) Energy Consumption

Refinery consumes fuel/ energy while refining the crude oil into refined products. Energy efficient processors/ equipment such as furnaces, pumps, exchanges are to be examined and monitored for optimum consumption of fuel/ energy. Continuous updation of energy consumption techniques for efficient utilization of fuel/energy therefore is required. Thus the electricity supply contracts and

relevant payments made vis-a vis controls in place to ensure economical use of electricity could be verified. Whether any Energy audit was got done and the recommendations given therein have been implemented or not could also be seen.

(j) Captive Power Plant

Captive power plant provides uninterrupted power and steam supply for running the pumps, compressors and other equipment's. For meeting any emergency, alternative source of power supply from outside is also lined up. Steam is used for heating, striping in columns, driving steam turbines and power operation. The audit of this area would check the capacity utilization, consumed vis-a-vis norms, efficiency of operation, the idle time and reasons therefore and comparison between usage of power internally generated verses outsourced

(k) Additional Issues

The audit would also could see purchase & consumption of chemicals, catalysts, various stores and spares, efficacy of maintenance and operational activities and disposal of scrap as well.

Petroleum products being mostly liquid in nature require special facilities for storage, transportation and distribution. Most of these are volatile in nature and require special care in handling delivery. Marketing and distribution of the products is done by downstream companies normally through a large network of storage and distribution facilities. Marketing of petroleum products demands finer marketing skills in as much as the market leader is company, which can make products available to consumers in the most efficient manner at all times at right price, in right quantity, of right quality and at the right place.

2.The marketing activity in a downstream company generally have the following features:

Installation/Distribution Facilities: This consists of pipelines, storage tanks and product handling facilities for receipt of products from port and/ or refineries for onward dispatch to direct customers in bulk and inland depots. The various modes used for transportation of petroleum and crude to consumers include coastal tankers, river barges, multi-product cross country pipelines, branch pipelines, railway wagons, road tank-trucks, etc. Crude oil is transported to the refineries either by tankers or by pipelines. The product from the refinery/ port installation are moved by rail, road, pipeline and coastal vessels. The centers of consumption and production and the points of import of petroleum could be at places separated by hundreds of miles. Surplus products at a location also need to be transported to areas facing deficit. With the economics of refinery location determining the exact position, crude has to be transported from points of supply or import facilities to the refineries and refined petroleum products have to be transported from refineries to the consumption centers. For bulk transportation of petroleum products, pipelines are the most energy efficient, convenient and preferred mode of transportation. With deregulation, the oil companies and shippers have multiple options in selecting the mode of transportation and there is an increased emphasis on quality and reliability of service.

Airport Fueling Stations: Oil companies have infrastructure at the airport stations consisting of storage tanks, hydrants, pipelines, hoses etc., for fueling aircraft.

Retail Pump Outlets: This is the last link in the distribution and the oil companies have dedicated dealer network for retailing MS and HSD.

LPG Bottling Plant: Bulk LPG imported or from the refineries is bottled at the LPG bottling plants before being marketed to the domestic and industrial customers.

Lube Blending plant (LBP): Base oil from Refinery is blended with Additives to manufacture Lubricants and Greases. Blended Lubricants and Greases are filled in packed containers/pouches.

A Types of Market :- In order to identify the class of market in which an outlet has been set up the retail markets are classified as “A” Class Market - Metropolitan cities and other cities having a population over 8 lakh as per the 2001 census, “B” Class Market - Cities having a population below 8 lakh as per the 2001 census excluding North Eastern States, Himachal Pradesh, Jammu and Kashmir and Uttarakhand, “C” Class Market - All other towns/ cities not covered under “A”, “B” and “E” markets excluding locations on National/ State Highways, “D” Class Market - Retail outlets on National/ State Highways, and “E” Class Market - Remote areas not covered by National/ State Highways and pockets of consumptions having no retail outlet within 10 KMs radius and to cater to the requirements of the agriculturalists etc., in the remote areas i.e., areas which are not on National/ State Highways, North Eastern States, Himachal Pradesh, Jammu and Kashmir, Lakshadweep and Uttarakhand.

B Types of Distribution Channels: There are two channels of marketing in selling of petroleum products, one, retail and second, direct. The retail channel comprises the following three:

Retail outlets for MS, HSD, Lubricants, Greases.

Under the category, the following types of retail outlets are further identified:

“A” site - which are Company owned and company controlled.

“B” site - which are Dealer owned and company controlled.

“C” site - which are Dealer owned and Dealer controlled.

Utility pumps for HSD.

Agency for Kerosene, LDO, Lubricants/ Greases.

C Strategic Reserves: -The marketing/ refining companies have to maintain strategic reserves of petroleum products in the country since an oil supply crisis can disrupt the economic life of the country. It is therefore desirable to have a buffer to cope with the difficulties and manage the crisis

should it reach a critical stage. However, before this stage is reached, it is desirable to intervene in the course of the crisis, for as supplies begin to dry up, there is a risk of speculation which fuels price increase and, to a certain extent, the crisis itself. It, therefore, makes good economic sense to have a means of defusing the crisis by off-loading the reserve stocks on the market before the crisis develops. Further, this buffer itself is a powerful deterrent for those who might be tempted to unleash a supply crisis.

Sharing Arrangements: As any one downstream company having presence in entire country cannot have its own source of supply and infrastructure throughout the country, sharing arrangement is necessary for effective utilisation of their product and facilities. As such Memorandums of Understanding (MoUs) are a common feature in the oil industry (generally referred as Hospitality arrangement), wherein one oil company enters into an MoU for sharing product supply, pipelines, storage & other facilities with other oil companies which have product availability and infrastructure at a given place.

D Oil Industry Safety Directorate (OISD) Norms/Explosive Norms/ Pollution control Norms/Marketing Discipline Guidelines: - In addition to the OISD, Explosive, Pollution Control norms which were already discussed in previous chapter on Refining, for marketing activity are also governed by the Marketing Discipline Guidelines (MDG) which are formulated by the Ministry of Petroleum and Natural Gas. The basic objective of the Marketing Discipline Guidelines is to protect the ultimate customers' interests, so that they get the full value for their money in terms of correct price, quantity and quality.

Quality Control: -The petroleum products marketed by the oil Industry conform to the Indian Standard Specifications which is followed as a marketing specification for each product. The concerned refinery provides its report confirming that the product in the tank for which transfer is proposed meets the specifications. Thereafter, required quality control measures are taken at all stages, i.e., receipt of product at TOPs through pipelines, through rail wagon, through tank trucks etc. Required procedures are followed to ensure quality control checks at various stages till the product is finally delivered to the consumer. For this purpose, quality control labs are set up at the refinery, TOPs, depots, port installations etc., to ensure that the products conform to the required specifications. Mobile laboratories are also set up to check the quality of the products while it is in transit from the supply location to the premises of the consumer (in case of delivered supplies). The mobile laboratories are also established for checking the quality of the product being dispensed from the Retail Outlet.

3.Audit Issues in Marketing

(a) Inter Company Transactions

The inter oil company transactions (sourcing of products) among marketing oil companies is normally either Outright purchase/ sales, Hospitality assistance or Loan transaction. These transactions take place at the industry locations viz., refinery supply points, pipeline tap off points and marketing

company's terminals put up near a refinery. The produce is transferred from the seller to the buyer company, ordinarily, by means such as tank wagon (TW), tank trucks (TT), tank to tank transfer through pipelines, tanker or barge. All product accountings are done at 15OC. Inter oil company transactions take place reciprocally (i.e., purchase and sale of petroleum products takes place between the marketing oil companies at different locations simultaneously). Hence, to avoid multi-point settlement work, a centralized net settlement system has been established by the oil industry. These centralized settlements take place every month. Monthly settlements among the companies are based only on Joint Certificates (JCs). Separate JCs are prepared for the current month and for prior period transactions. Based on the JCs, monthly billings for all elements of price, duty, freight, taxes and other charges are exchanged and final settlement thereof effected. Payment for the terminalling charges are made on a monthly basis on receipt of the claims from an oil marketing company.

Audit could check the following issues in respect of **intercompany transactions**:

1. The type of intercompany transaction made
2. Whether the elements of purchases are recorded as per the type of intercompany transactions
3. Whether the quantity billed is as per the joint certificate
4. Whether relevant Railway Freight/ Siding/ Coastal Freight/ Pipeline Freight has been paid
5. Whether relevant inventory holding charges/installation charges are paid as per the MoU with other companies
6. Whether the product dispatched from the loading base has been received at the receiving location and look into the same if not received
7. Whether other amounts paid are in line with MoU between the Companies
8. Whether the payments are made as per payment terms specified in the MoU between the companies

The petroleum product sourced through either own production or intercompany transaction would be sold and the sales may take place in the form of sales to marketing companies/ units in respect of mass consumption products like MS, HSD, SKO (D), LPG (D), ATF, in line with marketing arrangement and also other petroleum products or direct sale by refinery in respect of LDO, FO, LSHS, Naphtha, LPG (B), Base Oil (for Lube manufacturing), Wax, Bitumen, Hexane, Propylene, Hydrogen and other industrial petroleum products. The transfer of product takes place by way of coastal tanker, pipeline, rail wagon, tank lorries and trucks.

(b) Sales are affected through a supply distribution network comprising of installation, dispatch unit, depots, LPG bottling plant, from where the products are sold to dealers, distributors as well as direct consumers. Products are sold either directly to the consumers or through a network of dealers/distributors. In case of bulk purchasers, deliveries are affected through pipeline or through other modes of transport. In case of MS and HSD the sales are affected through Retail Pump Outlet

(RPO), which are either operated by dealers appointed by the Company or by the companies themselves. The prices chargeable to Retail Outlet Dealer/ Direct Consumer are intimated to respective Depots/ Installation on a regular basis and as and when there is a change in the prices. The sales invoice package is installed at the Depot/ Installation for raising the invoices and receiving the payments thereof. The sales invoice is raised from the supplying location like Depot/ Installation and payments are collected at the location itself. In case of sales to dealers, the payment is against supply of products. In other words, the sales are on “Cash and Carry” basis. Since the amount is collected immediately on sale of products, there are no debtors in this case. However, Government consumers and certain major consumers are extended credit facilities. The auditor’s scrutiny **with regard to Sales** with regard to the above would include:

1. Verifying the type of sales affected, whether cash or credit and Retail or Direct Customer.
2. Verifying that the appropriate price is charged to each customer/ dealer, as applicable to them depending on the delivery point.
3. Verifying, in case of credit sales, that proper approval has been given by the competent authority, as per Credit Policy, after appropriately evaluating the credit worthiness of the Customer/ Dealer.
4. Verifying that price change, whenever it occurs, is properly billed to Customer/ Dealers and accounted for.
5. Verifying the age-wise analysis of debtors.
6. Verifying that the discounts/ rebates charged to customers/ dealers are as per the rates approved by the competent authority, as applicable to each customer/ dealer or category of customers/ dealers.
7. Verifying that short-payments are received from the customers/ dealers.
8. Whether periodic reconciliation of customer balances is done.
9. Whether ‘balance confirmations’ are obtained from customers.
10. Verifying that outstanding dues are collected as per due dates and in case of collection beyond due dates, interest and penalty, in case the sales contract so provides, are collected. Railway Claims.

(c) Railway Claims

Railways are an economic, convenient and reliable mode of transportation of petroleum products. The oil industry, therefore, normally uses tank wagons provided by the Indian Railways for transporting its bulk products. These tank wagons are calibrated by the Oil Industry on behalf of Central Tank Wagon

Calibration Committee. Sometimes, tank wagons loaded at the loading location do not reach the receiving location due to various reasons. The consignor oil company can raise a claim in respect of credit for the products decanted wrongly by other Oil Company/ Railways or the value of the product for non-receipt of such wagon within a reasonable time. If any wagon is not received for more than a month, all efforts should be made to trace the wagon and to obtain necessary product credit or lodge claim on Railways for compensation as the case may be.

Notice for claim for compensation in respect of all claims is required to be lodged with the Railways within six months from the date of booking or date of the Railway Receipt. The claims lodged after six months' period are declared as Time Barred claims. The documents need to be furnished to the Regional Railways Officer for lodging the claim notice are Copy of Railway Receipt, Loading/ Dispatch Advice or Challan, Joint Dip Measurement and Shortage certificate issued by the Railways in case of Short Delivery claim, Partial Delivery or Non-Delivery Certificate, Transshipment Certificate, if any and Laboratory Certificate, if any tests have been conducted.

1. Verify that stocks are reconciled on a periodical basis i.e., weekly, fortnightly and monthly basis to find out the non-receipt of products at receiving locations, after a reasonable time
2. Verify that the claims lodged with railways are covered under any one or more of the situations mentioned above
3. Verify that efforts are made to trace the non-receipt of products and obtaining necessary product credit or lodge claim on the Railways for compensation, as the case may be
4. Verify that claims are lodged to the jurisdiction of respective Railway Zones
5. Verify that claims are lodged with the Railways within six months from the date of loading or date of Railway Receipt, failing which the claims would become time barred
6. Verify that claims are made in prescribed form separately since claim forms for non-delivery and claims for short receipt differ
7. Verify the MIS maintained for recovery of claims
8. Verify the necessary accounting entries made while loading the claim and after receipt of claim
9. Verify that all the necessary documents required for lodging claim notice are filed with the Railways
10. Verify the age-wise analysis of Railway claims

(d) Installations/ Terminals

Installations/ Terminals consist of storage tanks and product handling facilities for receipt of products from port and/ or refineries for onward dispatch to direct customers in bulk and inland depots. The audit procedures in this regard comprise verifying that:

1. All the facilities are utilised to the optimum extent and there are no idle assets.
2. The product is received into the tanks as per the invoice raised by the supplying company & All the excise formalities are complied with in case of bonded location for storage and distribution of products.
3. Daily physical stock dips are taken and calculations of stocks are as per the calibration chart of each tank.
4. The receipt losses, storage/ handling and transit losses are kept to the minimum extent possible and are within the norms prescribed
5. The safety norms are complied.
6. All the firefighting facilities are available and monthly fire drills are carried out.
7. All quality control tests required as per industry quality control manual are carried out
8. All the MIS, accounting returns are sent to Head Office on regular basis.
9. Adequate security arrangements are available.
10. All the assets and product stocks are adequately insured.
11. Appropriate controls are exercised over the contaminated products and its accounting thereof.
12. All the statutory licenses/ approval required for the location are obtained.

(e) Depots

A depot normally consists of storage tanks and product handling facilities for receipt of products for onward dispatch and transportation facilities for onward movement of products to retail outlets and direct customers. The audit of a depot ordinarily comprises the following procedures:

1. Verifying the points mentioned in above para pertaining to installation/terminal
2. Verifying that product shortage in case of tank lorry receipts are fully recovered from the transport contractors.
3. Aircraft Fueling Stations
4. Downstream companies normally also have infrastructure at the airports consisting of storage tanks, hydrants, pipelines, hoses etc., for fueling fuel aircraft. The audit of aircraft fueling Stations involves examining:
5. The agreements entered into various airlines for fueling of product
6. Whether appropriate prices are charged to respective airlines. While raising invoices and payments received are, as per agreements

7. Whether the applicable sales tax rates are charged to respective airlines
8. Whether the product tanks are calibrated and calibration charts are certified by competent authorities
9. Whether physical stocks dips are taken on daily basis and reasons for variation in stocks, if any, are appropriately recorded
10. Whether all the safety norms are adhered to
11. Whether all the assets and product stocks are adequately insured
12. Whether all the facilities are optimally utilized

(f) Lube Depot

The lube depot stores blended lubricants and greases for automotive and industrial needs. The audit procedures for auditing the lube depots would differ from one product to another. Illustrative procedures for the products are discussed below:

(i) Base Oil

1. Verifying the receipt of base oil with respect to invoice received or bill of lading received
2. Verifying the base oil quantities Vs pipeline receipts ex- refinery
3. Checking transit & stock losses with regard to product received
4. Examining the mode of payment for imported cargo
5. Verifying whether daily physical dips of all the tanks are taken and reasons for variation, if any, appropriately recorded

(ii) Chemicals and Additives

1. Verifying the receipt of chemical and additives vs indent pattern
2. Verifying the stock holding vs actual utilization, slow and surplus stocks
3. Verifying the shortages in receipts and recoveries control

(iii) Containers

1. Verifying the indents on fabricators Vs purchase order quantity and terms
2. Verifying the execution of call ups by the fabricator and time delay in execution
3. Verifying the receipt confirmation and inspection reports of the same
4. Verifying the control over rejects and receipts without GRNs.
5. Cartons, Packing Materials and Consumables
6. Verifying the indents on suppliers Vs Purchase Order quantity and terms.

7. Verifying the quality testing and sample test reports
8. Verifying the control over damages in cartons and control over wastage
9. Verifying the inventory control system at the blending plant
10. Verifying the accounting and treatment of rejected materials

(iv) Blending /Production

1. Verifying the adequacy of control in production process
2. Verifying the utilization of materials and consumption pattern
3. Verifying quantity mix ratios Vs actual mix ratio on test check basis
4. Verifying the production plan and market demands/ indents
5. Verifying the filling Vs empty drums/ containers
6. Verifying the accounting of the finished goods
7. Verifying utilization of blending facilities - idling assets and unutilized facilities

(v) Repacking /Small Fillings

1. Verifying the agreements/ Purchase Order with re-packers for small filling
2. Verifying control over the finished product stocks sent to small packs and receipt of filled packs thereof

(g) Transportation

Transportation cost plays a vital role in determining the final selling prices for the consumers. Crude oil is transported to the refineries either by coastal tankers or by pipelines. All modes of transportation of petroleum products complement each other and form the essential components of the logistic system. For bulk transportation of petroleum products, pipelines are the most energy efficient, convenient and most preferred mode of transportation. Efficient and economic transportation of petroleum products to the consumption centers is a major challenge. In order to ascertain the source of supply to a particular area, it is vital to examine and ensure that there will not be any price disparity in the neighboring areas of each pricing area boundaries therefore; the equivalent cost norm plays a vital role in demarcating economic supply zone. Different supply zones of each port or inland refineries are thus demarcated on the basis of equivalent cost of the major product and some other practical issues. The principle of distribution is to plan and execute the movement of petroleum products from the refineries/ main ports to various distribution centers in a systematic and organized manner. The bulk petroleum products are required to be moved by one or more of the following mode of transportation:

(i) Coastal Tankers/ Barges: These are used for carrying petroleum products from port refineries to port terminals. At the receiving location, an oil jetty is available for discharging the tanker through a pipeline, which runs from the oil jetty to the terminal. The discharge of the product is carried out with the help of high capacity pumps. The audit scrutiny with regard to coastal tankers involve:

1. Verifying whether the payments to shippers are done as per the agreement/contract with them
2. Verifying whether the quantity base on which charges have been levied is correct
3. Verifying that if the coastal tanker cost is being reimbursed to any other oil company then whether it is as per agreement
4. Checking whether the parcel sizes are as per assumed parcel size
5. Verifying whether the lay time is as per agreed terms
6. Examining whether the demurrage claims is as per agreed terms
7. Verifying whether the detention, exceptions, lay time is as per agreed terms
8. Verifying the charter hire, bunker cost and port charges, wharfage, survey fees, agency fees, insurance payments etc.
9. Examining the idling cost of vessels

(ii) Pipelines:

Some of the mainland installations are connected through a pipeline from the refinery to the installation. Such installations are called Pipeline Terminals. In case of long pipeline running through the mainland, receiving, storing and distribution facilities are set up at suitable locations enroute. These are called Tap-off points since product is tapped off here from the main pipeline. Audit procedures for examining the transportation through pipelines involve:

1. Verifying whether the contract of agreement for transportation of products has been entered to with owner of pipelines
2. Verifying whether the freights is paid as per the agreed terms of the contract
3. Verifying whether there are any transit losses
4. Check whether pipeline is being used optimally

The advantages of pipeline transportation are a) Lower cost of transportation, b) Lower transit losses, c) Lower energy intensiveness, d) Economics of scale, e) Safely & reliability - minimum disruptions, d) Environment - Friendliness, e) Multi product handling & f) Decongestion of surface transport systems. However, the disadvantages of pipeline transportation are a) Capital intensive, b) Viability depends on utilisation, c) Once laid it is sunk cost / No alternative use, d) Less flexibility regarding

batch size., e) Door to door delivery not possible. As regards audit of pipeline transactions the following points to be verified.

1. To verify that the Board approval has been taken for laying of new pipelines.
2. To verify that cost benefit analysis has been done for laying of pipelines.
3. To verify that fixation of pipeline tariff has been done taking into account all the operating expenditure (variable and fixed) and amount of investment in pipelines.
4. To verify that maintenance schedule of pipelines are adhered to so that the pipelines are used for transportation of products with minimal disruption.
5. To verify that the contracts of laying the pipelines are awarded after following proper purchase procedure.
6. To verify whether the pipelines and its facilities are idling due to non-maintenance or non-availability of product for pipeline transportation.

(iii) Tank Wagons:

By far the most common mode of product movement to inland depot locations is through railway tank wagon. For receiving the product through tank wagons, each depot is provided with a siding of suitable capacity and the products are discharged through a pipeline, which runs from the railway siding to the depot tank. The procedures employed for audit of transportation by means of railways include the following:

1. Verifying whether the payments are released as per due dates agreed in the agreement with the Railways
2. Verifying whether the payment is released as per the amount mentioned in the Railway Receipts (RR)
3. Verifying whether the freight charged and calculations in RR is in line with railway tariff table rates
4. Verifying whether appropriate tariff rates are applied as per the railway tariff table i.e., if a particular consignment is eligible for charging on train load rates, wagon load rates are not charged
5. Verifying whether freight paid on behalf of other marketing companies are recovered within the due dates agreed
6. Verifying whether in case there is excess payment of freight due to application of wrong rates, the necessary refund claims are submitted within reasonable time
7. Verifying whether in case there is excess payment of freight due to short receipt of product, the necessary refund claims are submitted within reasonable time
8. Verifying whether demurrage charges are paid to railway for delayed decantation of product or

delayed loading of the product into the wagon

(iv) Tank Trucks:

Tank trucks are used extensively in transporting products from a source to the last point of sale i.e., retail outlets/ customer premises. Internal audit of transportation by means of tank trucks/ lorries involves examination of the following aspects:

1. Whether transport contractors are selected as per approved policy
2. Whether the transport agreement/ contract has been entered into with contractor
3. Whether the security deposit payable as per the contract agreement has been received
4. Whether the approved tank lorry vehicle as mentioned in the contract agreement has been used to deliver the products
5. Whether the rate and amount claimed is as per the contract and is within the contract validity period
6. Whether the payment is released after getting acknowledgement copy of the goods received
7. Whether the shortages certified by tank driver have been recovered from transportation bill
8. Whether the payments are released only to the approved list of tank lorry vehicles maintained

(h) Fleet Cards:

Oil marketing companies have started issuing Fleet Cards to the Fleet Owners/ Operators to facilitate cashless purchase of Petrol, Diesel and Lubes from the selected Retail Outlets. The audit procedures of in respect of the fleet cards comprise:

1. Examining the policy of fleet card program
2. Verifying whether the eligible fleet owners are given cards as per the policy
3. Verifying whether the amount paid in advance by the fleet owners are accounted for properly in the books and booking of sales is done on a daily basis based on the upliftment of Petrol, Diesel and Lubes
4. Verifying whether the reward points are given to fleet owners as per entitlement in relation to the upliftment of Petrol, Diesel and Lubes

4.LPG Bottling Plants

Liquefied Petroleum Gas (LPG) is one of the joint products which is produced during refining of crude oil or produced along with drilling operation of natural gas / crude oil. It consists of Hydrocarbons namely propane and Butane. LPG is highly inflammable and is stored in high pressure storage vessels. The Bulk LPG for filling into cylinders is moved to a Bottling Plant by pipeline, and rail wagon or tank lorry. The product received by Tank wagon/ Tank lorry is decanted and through Pipeline from Decanting bay, is again stored Sphere or Bullets above / below ground. At Bottling Plant, the Bulk LPG will be drawn from the Storage tanks through a pipeline and fill the LPG into various sizes of Cylinders depending upon the demand of respective size of cylinders.

The LPG is sold by way of Bulk quantity and Packed quantity. The sale of Bulk LPG is done to Industrial customers or customers who require LPG in large quantities. The sale of Packed LPG is done to House hold sector (Domestic) and Hotel industry(commercial). The type of sales made are Packed domestic LPG (5 kg and 14.2 kg), packed commercial (19 kg, 35 kg and 47.5 kg) and Bulk (in MTs). The Packed Domestic LPG is distributed to the customers through Distributors network. The packed commercial LPG is distributed either directly to customers or through distributors network. The Bulk LPG is distributed directly to customers. The distributors are appointed by the company based on the laid down criteria for selection of distributors depending upon the requirement for appointment for a particular location at a Place. There are Marketing Discipline Guide lines (MDG) which are to be followed by the distributors while marketing and distribution of LPG filled cylinders. Those who violate the implementation of MDG guide lines are liable for fines, penalties and suspension of distributorship.

(a) Sale of Bulk/Packed LPG

The type of sale effected may be Bulk/packed LPG. Sale of Bulk LPG refers to sale of LPG in Large quantities to Industrial customers who will store the LPG in storage tanks in their premises. The sale of Packed LPG refers to sale of LPG filled in cylinders of various capacities of 5/14.2/19/35/47.5 kgs. The sales of packed LPG cylinders in capacities of 5/14.2 kg are termed as Domestic packed LPG sales. The sales of packed LPG cylinders in capacities of 19/35/47.5 kg are termed as Non Domestic packed LPG sales. The sales of Bulk LPG will be made directly to the industrial customers. The sales of Packed LPG will be made through network of Distributors appointed by the company. The following could be checked by audit in this regard-

1. To verify the type of sales whether it is Bulk or Packed LPG sales and whether the sales made to Bulk LPG customers are as per the terms of sales order
2. To verify in case of Bulk LPG that the prices are charged as per selling rates prevailing on the date of supply
3. To verify the payment terms and to confirm that the payments are received as per approved payment terms
4. To verify that the discounts extended to Bulk customers are within the discount policy of the company. To verify that the distributors are returning the empty cylinders while taking the filled cylinders
5. To verify that tariff costs of cylinders are recovered from Distributors in case of non-return of empty cylinders
6. To verify that, the transportation payments to transporters are released as per the finalized tender
7. To verify that the packed LPG sales are made through appointed Distributors only bifurcating into domestic/non domestic sales
8. To verify that the prices of Packed LPG are charged as per selling rates prevailing on the date of supply in respect of Domestic/Non domestic sales respectively
9. To verify that the stock of cylinders/regulators etc with distributors is as per prescribed limits and statutory requirements are being followed by distributors
10. To verify that fines, penalties are collected from those distributors who have violated the MDG guidelines

5.Hot Repair of Cylinders

Hot repair of LPG cylinders means repairing of valve protection ring (VP ring) or foot ring because of very deformed VP rings or foot rings. Hot repair Process includes accessories for cutting and surface welding of VP rings and foot rings as well as equipment for normalizing LPG cylinders.

LPG cylinder found requiring repairs is put to Hot repairs once in its lifetime as per IS code of practice. Each and every Hot repaired cylinder is also certified for use by BIS and is accordingly put into circulation. Any LPG cylinder which has undergone one Hot repair, if it is found damaged subsequently deformed and scrapped. New LPG cylinders are purchased as replacement to the cylinders scrapped. The following issues could be checked by audit in this regard -

1. whether the process of segregation of cylinders requiring Hot repairs is in vogue at each bottling plant
2. Whether the quantity of cylinders requiring Hot repairs are kept separately
3. whether in house facility is available for Hot repairs and in case of there is no in house facility for Hot repairs, whether tendering process (Public or Limited) is followed for allocation of hot repair work
4. Whether the contractors for Hot repairs are uplifting the cylinders for repairs as per the work order terms and returning the repaired cylinders as per terms of contract.
5. To verify that the cylinders which cannot be repaired, deformed and scrapped. Whether the scrapped cylinders are disposed of on regular basis by following tendering process (public or limited)

(a) Statutory Testing of Cylinders

LPG Cylinders are manufactured through manufacturers approved by the Chief Controller of Explosives, and having Bureau of Indian Standards (BIS) license. Each and every new LPG cylinder is checked at various manufacturing stages and marked by BIS after various tests carried out as per the BIS codes and Gas Cylinder Rules, 2004, before putting them into circulation by the Oil Companies. Thereafter, each LPG cylinder is checked at the LPG Bottling plants and only the ones which are meeting the Standards as specified in the Gas Cylinder Rules are filled, checked and sent to the Distributors for distribution to the customers. All new LPG cylinders are required to be put to first Statutory Testing after 10 years. Thereafter, the cylinders are put to statutory testing every 5 years. Such testing of LPG cylinders is done through agencies approved by CCOE as specified in The Gas Cylinder Rules 2004 and once again put into circulation only if the cylinders pass the required Pressure Tests.

On one of three vertical stay plates (side stems) of the LPG cylinder, the date is coded alpha numerically as A or B or C or D and a two-digit number following this e.g. D10. The alphabets stand for quarters - A for Qtr. ending March (First Qtr), B - Qtr. ending June (Second Qtr), C-Qtr. ending Sept (Third Qtr), & D for Qtr. ending December (Fourth Qtr). The digits stand for the year when the cylinder is due for Statutory testing as explained above. Hence D10 would mean that the particular cylinder is to be taken for the next Statutory Testing by December 2010. However, this is not the date of expiry of physical life of cylinder and during service, every empty LPG cylinder when it comes from the distributor to the Bottling Plant for filling, is checked for its condition including the marked date for Statutory Testing due. Cylinders due for testing are segregated and sent for testing. Every cylinder after its filling with LPG is checked for correctness of its weight and soundness, before dispatch to the

distributors. Every care is taken to ensure that cylinders which are safe for use are only sent to our Distributors for further distribution. It means if a customer gets a cylinder in June 2010 with marking as B10, it does not indicate that the physical life of the cylinder has expired. It only means that this cylinder is due for Statutory testing by end June 2010. The following could be checked in audit-

1. To verify that the quantity of cylinders due for statutory testing are kept separately
2. To verify that the selection of parties for doing the statutory testing are selected based on the tendering process (Public or limited)
3. To verify the record keeping for movement of cylinders is updated on regular basis
4. To verify that the contractors for statutory testing are uplifting the cylinders for testing as per the work order terms
5. To verify that the cylinders which cannot be tested are de-shaped and scrapped
6. To verify that the scrapped cylinders are disposed off on regular basis by following tendering process (public or limited)

Audit Checklist for IOCL Marketing Head Office Units and Western Region Offices

Units	Functions	Audit Checks
Aviation Dept.	<ul style="list-style-type: none"> ➤ Procurement of Refuellers and Hydrant Dispensers. ➤ Insurance policies and its renewals. ➤ Rent paid to Air Port authority. ➤ Agreement finalised with Airport Authority. ➤ Monitoring Sales performance/Market Shares. ➤ Discounts/Credit facilities given to the airline customers. ➤ Maintaining centralised Customers account, like Airways, Air India Air BP etc. ➤ Monitoring and Renewal of agreement /contracts with airlines. ➤ Dealing with legal cases 	<ul style="list-style-type: none"> a) Scrutiny of Debtors. b) Review of status of legal cases of Debtors c) Scrutiny of Quality control reports d) Scrutiny of Performance report of AFS. e) Verification of tenders finalized for Procurement of Refuellers and Hydrant Dispensers. f) Review of all agreements signed with various airlines and its renewals etc. g) Review of agreements signed with Airport Authority/Airport Operators and rent payments. h) Review of discounts/ credit facilities given to the airlines customers with reference to the company's discount / credit policies.
Branding & Corporate Communication & Secretarial	<ul style="list-style-type: none"> ➤ Advertisement for marketing of major products ➤ Government Scheme and its Publicity ➤ Corporate Governance ➤ Agenda and Board Minutes 	<ul style="list-style-type: none"> a) Verification of tenders finalized for Advertisement for marketing of major products b) Verification of tenders finalized for Publicity of Government Scheme c) Compliance of Corporate Governance d) Review of Agenda and Board Minutes
Engineering and projects, Automation, M&I	<ul style="list-style-type: none"> ➤ To execute projects of various sizes for all the functionaries of Marketing set up ➤ Automation of Terminal and Depots ➤ Maintenance and Inspection of Terminal and Depots 	<ul style="list-style-type: none"> (a) Review of MIS reports (b) Scrutiny of DFR/ DPR of big projects (c) Scrutiny of Project approval notes of appropriate authority in respect of small projects (d) Scrutiny of Contracts/ purchases orders (e) Scrutiny of Testing/Commissioning reports (f) Scrutiny of Extra claims of the contractors

		<p>(g) Verification of Surplus project materials and its utilisation</p> <p>(h) Scrutiny of Project inventory reconciliation etc.</p> <p>(i) Scrutiny of time-over-run, cost-over-run.</p> <p>(j) Scrutiny of Contracts/ purchases for Automation</p> <p>(k) Scrutiny of Contracts/ purchases for Maintenance and Inspection</p>
Finance & Refinery Liaison Office	<ul style="list-style-type: none"> ➤ Cash and Bank Balance ➤ Payment of Import and Export realisation ➤ Compensation/subsidy/Grants received from GOI ➤ Management Accounts ➤ Taxation 	<p>a) Reconciliation of Debtors</p> <p>b) Verification of Cash and Bank Balance</p> <p>c) Verification of Payment of Import and Export realisation</p> <p>d) Verification of claims submitted and realised from GOI/OMC/Other PSU's and Private Corporate</p> <p>e) Settlement of Internal Audit queries</p> <p>f) Verification of different returns submitted to Tax Authorities</p>
Health, Safety Environment	<ul style="list-style-type: none"> ➤ Health, Safety Environment issues ➤ Norms framed by MOPNG and other Agencies, MB Lal Commission etc. and its implementation 	<p>a) Verification of Health, Safety Environment issues</p> <p>b) Verification of Norms framed by MOPNG, OISD, MB Lal Commission and other Agencies etc. and its implementation</p>
Contract Cell	Tenders and PO Floated and Placed	Verification of Tenders and PO as per CVC Guidelines and Purchase Manual
Human Resource	<ul style="list-style-type: none"> ➤ Maintenance and control of staff/officers, pay and allowances and administration. ➤ Policy decisions regarding approval for Employee benefit ➤ Administration and Welfares ➤ Security Policies ➤ Contract Labour Management 	<p>a) Review of HR policies, payment of incentives etc.</p> <p>b) Review of Employee Benefit Schemes</p> <p>c) Review of Security Policies</p> <p>d) Verification of Different claims (Medical/Transport etc.)</p> <p>e) Compliance of Statutory Requirements of Contract Labour</p> <p>f) Verification of Management Services and CSR Activities</p>
Information System	<ul style="list-style-type: none"> ➤ Purchase of Hardware's and Software's ➤ Upgradation of Hardware's and Software's 	a) Verification of Contracts for Purchase of Hardware's and Software's

		<p>b) Verification of Contracts for Upgradation of Hardware's and Software's</p> <p>c) Arbitration and court cases.</p>
LPG	<ul style="list-style-type: none"> • Assessing overall market demand on behalf of OMC • Import of LPG • Procurement of LPG from Reliance, Essar and MRPL etc. • Signing of Agreement with GAIL for transportation of LPG through pipelines. • Review of capacity utilisation of bottling plants. • Finalisation of Bulk transportation contract. • Procurement of LPG Cylinders, Pressure Regulators, valves etc. • Monitoring Sales (Distributor wise). • Formulation of Policy regarding distributorship. • Monitoring of arbitration/court cases. • Projects approval for constructions/capacity upgradation of Bottling Plants and monitoring. 	<p>a) Scrutiny of OMCs and hospitality transactions.</p> <p>b) Scrutiny of Tenders finalised and receipt of LPG Cylinders, Pressure Regulators, valves etc.</p> <p>c) Verification of Cash and credit policy relating to dealers / direct customers, Debtors.</p> <p>d) Scrutiny of Cylinder inventory records.</p> <p>e) Scrutiny of spurious cylinders, its investigation and writing off.</p> <p>f) Scrutiny of payment to RIL / GAIL.</p> <p>g) Review of Bottling Plants performance.</p> <p>h) Review of Bulk transportation contract.</p> <p>i) Review of PPAC claims.</p> <p>j) Review of overall sales.</p> <p>k) Scrutiny of Projects approval for constructions/capacity upgradation of Bottling Plants and cost-over-run & time-over-run if any etc.</p>
Lube	<ul style="list-style-type: none"> • Assessing overall market demand various Lube branded products. • Procurement of Lube inputs such as additives, Base Oils etc. • Import of additives, LOBs etc. • Procurement of Lube package materials. • Signing of Agreement with LIOC, Nepal, IOML for 	<ol style="list-style-type: none"> 1. Scrutiny of Debtors (Region - wise) 2. Review of status of legal cases of Debtors. 3. Scrutiny of Quality control reports. 4. Scrutiny of Performance report of LBPs etc. 5. Verification of Excise, Customs and Sales Tax payments. 6. Verification of tenders finalized for Procurement of Lube inputs, packaging materials.

	<p>marketing of lube branded products.</p> <ul style="list-style-type: none"> • Lube exports. • Lube Institutional sales. • Quality control • Lube pricing • Review of Lube/ grease blending plants. • Monitoring Sales (Distributor wise) • Formulation of Policy regarding Retail distributorship/Institutional sales/export etc. • Monitoring of arbitration/court cases. 	<p>7. Review of agreements signed with various agencies for distribution of products.</p> <p>8. Review of agreements signed with LIOC/ IOML for export.</p> <p>9. Review of discounts / credit facilities given to the customers.</p>
Operations & Infrastructure Development	<ul style="list-style-type: none"> • Approval for Creation of New Facility at Ports/Depots/Terminals/AFS and Bulk Consumers • Approval for resitement of existing facility to another area • Approval for procurement of Land for Creation of different Facilities • Agreements/MOU signed with IOTL and others for Storage of POL Products 	<p>Scrutiny of Following approvals:</p> <p>a) Approval for Creation of New Facility at Ports/Depots/Terminals/AFS and Bulk Consumers</p> <p>b) Procurement of Land for Creation/resitement of different Facilities</p> <p>c) Agreements/MOU signed with IOTL and others for Storage of POL Products</p> <p>d) Correspondence with MOPNG/OISD/OPCL/RTI etc.</p>
Planning & Economic Studies	<ul style="list-style-type: none"> • Planning of New Projects • Approval of business Plan and marketing Activities • Attending Parliament queries and liaison with other Govt. Departments 	<p>Scrutiny and verification of Following approvals:</p> <p>(a) Planning of New Projects</p> <p>(b) Approval of business Plan and marketing Activities</p> <p>(c) Attending Parliament queries and liaison with other Govt. Departments</p>
Pricing	<ul style="list-style-type: none"> • Formulation for Pricing of different POL /Specialty Products 	<p>Scrutiny and verification of Following approvals:</p>

	<ul style="list-style-type: none"> Ministry's Guidelines on Pricing of Major Products 	<p>(a) Policies on pricing of different POL products</p> <p>(b) Formulation for Pricing of different POL Products</p> <p>(c) Ministry's Guidelines on Pricing of Major Products</p>
Quality control	<ul style="list-style-type: none"> Coordination with Industry, R&D, Refinery, PPAC and Functional Departments regarding QC Issues/MOU/Agreement/Faculty Assistants Coordination with shipping, IS, Contract Cell, S&D and Shipping Equipment Procurement/upgradation for LAB/Mobile LAB etc. 	<p>Scrutiny and verification of Following approvals</p> <p>(a) Coordination with Industry, R&D, Refinery, PPAC and Functional Departments regarding QC Issues/MOU/Agreement/Faculty Assistants</p> <p>(b) Coordination with shipping, IS, Contract Cell, S&D and Shipping</p> <p>(c) Equipment Procurement/upgradation for LAB/Mobile LAB etc.</p> <p>(d) Compliance of QC Manuals</p>
Consumer Sales	<ul style="list-style-type: none"> Policies and Strategies for Consumer Sales Export to Nepal and Bhutan Sales and Hospitality arrangement with OMC/JV/Associate Companies Agreement/MOU signed with OMC/JV/Associate Companies, major Customers such as STU, Railways , Defence etc 	<p>Scrutiny and verification of:</p> <p>(a) Policies and Strategies for Consumer Sales</p> <p>(b) Export to Nepal and Bhutan</p> <p>(c) Sales and Hospitality arrangement with OMC/JV/Associate Companies</p> <p>(d) Agreement/MOU signed with OMC/JV/Associate Companies, major Customers such as STU, Railways, Defence etc.</p> <p>(e) Projection and Actual Sales</p> <p>(f) Review of Debtors</p>
Retail Sales & Retail Automation	<ul style="list-style-type: none"> Performance of Existing Retail Outlets Strategy on opening of New Retail Outlets and selection of Dealers Control Over Malpractices and Compliance of Customer Grievances Non Fuel Business Cost of Land and Premium/Lease rent Award of Contract for Automation Progress of Automation Plan 	<p>Scrutiny and verification of:</p> <p>(a) Performance of Existing Retail Outlets</p> <p>(b) Strategy on opening of New Retail Outlets and selection of Dealers</p> <p>(c) Control Over Malpractices and Compliance of Customer Grievances</p> <p>(d) Non Fuel Business</p> <p>(e) Cost of Land and Premium/Lease rent</p> <p>(f) Award of Contract for Automation</p> <p>(g) Progress of Automation Plan</p> <p>(h) Performance of Automated RO's</p>

	<ul style="list-style-type: none"> • Performance of Automated RO's 	
<p>SUPPLIES</p> <p>1. Commercial</p> <p>2. Supplies & Distributions</p> <p>3. Shipping</p>	<ul style="list-style-type: none"> ➤ International Trade Department of corporate office finalising import contracts based on R&D recommended suppliers. Based on this approval Commercial department Import various lube oils base stock, additives for branded lube products. ➤ Based on the advice of IT Dept at corporate office finalising export contracts ➤ Planning and implementation of supplies and distribution of POL Products ➤ Coordination with OMC/Pvt Refineries for S&D of POL Products ➤ Contracts with Shipping and other Charter Parties for coastal movement of POL products. 	<p>Scrutiny and verification of</p> <p>a) Review the company's policy of import and export of branded products, naphtha, NGL etc.</p> <p>b) Scrutiny of import contract w.r.t. pricing.</p> <p>c) Scrutiny of export contract w.r.t. pricing.</p> <p>d) Scrutiny of Realisation of amount in export etc.</p> <p>e) Planning of Supplies and Distribution of POL Products and its Implementation</p> <p>f) Coordination with OMC/Pvt. Refineries for S&D of POL Products.</p> <p>g) Contracts with Shipping and other Charter Parties for coastal movement.</p> <p>h) Arbitration and Court Cases</p>

IOCL (WESTERN REGION)

Following areas are seen during the audit of **State Offices**:

1. Scrutiny of /Purchase Requisition/Purchase Orders/ Contracts
2. Review of Policy decision /Guidelines of Head Office /Corporate Office and its implementation
3. Scrutiny of Capital & Revenue Budget and the actual expenditure
4. Status report on projects, WIP, delay, cost overrun, liquidated damages, payments, escalation, deviation, etc
5. Scrutiny of Legal/Arbitration cases
6. Stock loss reports/cases of fraud, misappropriation, pilferage etc.
7. Automation of Terminals
8. Verification of idling of assets
9. Reconciliation of records relating to major Government consumers
10. Internal Audit Report and its compliance
11. Sundry debtors, sundry creditors, reconciliation and payments relating to major customers
12. Verification of investment, title deeds of assets.
13. Approvals of major decisions on projects, contracts, Board decisions etc.
14. Corpus Fund Scheme

Following areas are seen during the audit of **Terminals**:

1. MIS Reports>Returns of various departments/wings
2. Review of Stock loss at Terminals
3. Automation System
4. Demurrage Payment, Tank Wagon Utilization
5. Execution of Contracts for various projects, Maintenance contracts etc.
6. Physical Stock Verification and Stock as per SAP records
7. Tank Capacity and its utilization
8. Vehicle Track System, Loading /Transportation of Products, Calibration of tank measurement, weigh bridge etc.
9. Verification of cash and credit facility to dealers/direct customers
10. Statutory payments/ Validity of licenses
11. Implementation M.B. Lal's Recommendation
12. Idling of assets/land/inventories, slow moving items
13. Quality Control of the products
14. Details of stock transfers from other terminals / transfers to other terminals

Following areas are seen during the audit of **Divisional Office**:

1. MIS Report of retail sales and consumer sales for sales performance, variance in sales quantity and price, budgeted sales and actual sales, sales returns, quality issues, stock losses, etc.
2. Scrutiny of records pertaining to major consumers, vendors, agreements with the Retail Outlet/COCO dealers/contractors, etc.
3. Sundry debtors, Sundry creditors, related payments settlement to vendors and collection from Consumers, reconciliation with the Customers, Monitoring System of credit, etc.
4. Verification of discount, cash and credit policy in the case of bulk sales/dealers/direct customers.
5. Inventories, revenue expenditure, idling of assets, stocks, etc.
6. Delay in execution of the Project/job/installation work, etc.
7. Title verification of the assets owned by the Company, lease deed, etc.
8. Scrutiny of works awarded and executed by the division.
9. Accounts submitted to the Region and Bank reconciliation statements.
10. System of Automation.
11. Compliance of Statutory regulations, validity of licenses from the authorities, Environment Clearances for the operations, etc.

Following areas are seen during the audit of **Bottling Plants**

1. Review of bulk receipts and dispatch records
2. Scrutiny of losses
3. Verification of idling of assets land, inventories, etc
4. Records relating to recoveries from distributors, missing wagons,
5. Cases of Accidents
6. Review of MIS Reports,
7. Validity of licenses, compliance to statutory regulations, Environment Clearances, etc

8. Verification of discounts, cash and credit policy to dealers/direct customers, etc
9. Calibration records of tanks/weigh bridges, Carousel System for filling up cylinders
10. Implementation of M.B Lal Recommendations

Following areas are seen during the audit of **Area Offices**

1. MIS on distributor-wise status of reconciliation
2. Verification of Idling of Assets, Land, Nonmoving inventories
3. Reconciliation of records relating to recoveries from dealers
4. Implementation of HO Guidelines
5. Execution of Projects/WIP
6. Verification of the Corpus Fund scheme/Financial Assistance Infrastructure to LPG Distributors & its recovery
7. Agreements with dealers/ landlords, etc
8. Title deeds of investments of Companies, Lease deed, etc
9. Shortages/surplus, reconciliation of book balances with SAP records, for all the distributors, Equipment Movement Record(EMR) for cylinders and pressure regulators
10. Recovery from transporter for shortages.

Following areas are seen during the audit of **Depots**:

1. Verification of MIS report for retail sales and consumer sales
2. Sales performance/Retail outlets nonperformance, etc.
3. Discount/credit cap management, Xtra Rewards/incentive, etc
4. Shortages of the products beyond the norms/abnormal losses, recovery for losses from the truck contractor, etc.
5. Contracts finalized and executed by the Depot
6. Automation System at the Retail outlets
7. Compliance to various statutory regulations/licenses
8. Verification of title deeds/assets/RO site lease documents, etc

Following areas are seen during the audit of **IBP Cryogenics**:

1. MIS Reports on Performance
2. Purchases/Import Details
3. Production Plan and actual production
4. Inventories lying unused/Obsolete and nonmoving containers/ Idle stock, Physical Verification Report,
5. Reconciliation of physical stock with SAP records
6. Sundry debtors/Sundry Creditors, outstanding with the customers
7. Verification of Assets/title deeds
8. Agreements with the Customers/Service providers,etc
9. Contracts awarded and executed by the Division
10. Compliance to Statutory regulations/Licenses/Clearances, etc

Following areas are seen during the audit of **Lube/Grease Blending Plant & Small Can Filling Plant** :

1. MIS Reports on Production and Sales, Actual production against planned production, Capital/Revenue expenditure
2. Purchase Orders/procurement orders of small can packing materials, labels, Contracts awarded and executed by the Division
3. Capacity utilization of plants,
4. Sundry Creditors/Sundry Debtors, Reconciliation with direct consumers & CFA.
5. Inventories/stock lying unused, slow moving/Non-moving stock/Obsolete stock/Contaminated additives, etc
6. Supply and Distribution Plans, Transportation to Customers/Depots
7. Capital Expenditure/Revenue Expenditure against the budget
8. Operating Cost
9. Import details, Payments, demurrages, etc
10. Compliance to Statutory Regulations/Clearances/ Licenses, etc.
11. Verification of assets, lease deeds, etc
12. Agreements with the CFA
13. Discount/Credit Cap Management, etc

Following areas are seen during the audit of **Aviation Fuel Station**

1. Inspections: QC/Aviation department and their compliances etc.
2. List of capital assets with the AFS
3. Stock loss control and performance
4. List of Carnet customers/ carnet outstanding correspondence
5. VIP refueling/ Airport safety meetings minutes
6. Consumer sales- domestic/International
7. Refuelling risk insurance
8. Monthly returns (MIS)
9. Correspondence with AAI, Air India, India Airlines, defense, DGCA regarding Land

10. Lease, rental or purchase for aviation facilities.
11. Tankage utilization statement/Aviation equipment
12. Payment terms in respect of Airlines
13. Correspondence with individual airlines i.e., customers.

Audit Norms :

Auditable Area/Nature of Activity/Record	Audit Norms
Administration/HRD	General Review of the records maintained. Detailed check of entitlements of employees for selected month with reference to DPE guidelines, management policies, etc.
Contracts for Works, Import and Exports, Purchase, Engineering/Projects and Transport including charter party agreement	Based on Significance and value (60% of the total value to be covered) of the Contracts entered into with different parties.
Finance and Pricing, PPAC claim	100%
Taxation	100%
Sales (retail and Bulk)	100%
Cash and Bank Transactions	100% check for selected month
Review of Board Minutes	100%
Internal Audit Section	General Review of working of the System and study of the reports.

IOCL/Marketing Division Auditable Area/Nature of Activity/Record	Audit Norms
Administration/HRD	General Review of the records maintained. Detailed check of entitlements of employees for selected month with reference to DPE guidelines, management policies, etc.
Contracts for Works, Import and Exports, Purchase, Engineering/Projects and Transport including charter party agreement	Based on Significance and value (60% of the total value to be covered) of the Contracts entered into with different parties.
Finance and Pricing, PPAC claim	100%
Taxation	100%

Sales (retail and Bulk)	100%
Cash and Bank Transactions	100% check for selected month
Review of Board Minutes	100%
Internal Audit Section	General Review of working of the System and study of the reports.

PART-III
CHECKLIST FOR AVIATION
AIR INDIA LIMITED

Audit Objective:

The audit objectives included to examine whether:

1. the activities of the department were carried out economically, efficiently and effectively;
2. the compliance to various rules and regulations were ensured.

The sub audit objectives and risk involved in audit of major departments of AIL is as follows:

Audit Sub Objectives	Risk involved/ Audit checks to be exercised
A. Corporate Office and Office of Chairman and Managing Director	
To verify whether GoI infused equity into the AIL as per approved plan, schedule and on achievement of milestones by the AIL	What was the quantum and of equity infused by GoI over the years vis-à-vis approved plan? Whether the pre-conditions for release of each tranche of equity were satisfied by the AIL? In case of deviations from approved schedule of equity infusion, what was the impact on the AIL?
To assess whether the equity infused by GoI was utilised by the AIL for the intended purposes	The purposes for which infused GoI equity was utilised by the AIL and whether there were any deviations in its usage. Whether these deviations were noticed and rectified in monitoring
Whether the financial restructuring efforts have yielded the desired results as planned? Whether the results vindicate the assumptions underlying the financial restructuring plan?	The present financial position of the AIL vis-à-vis anticipated in the financial restructuring plan, highlighting the shortfalls. Whether the original assumptions of the financial restructuring plan remain valid in the altered financial position of the AIL. Whether any steps have been taken to identify and correct the altered situation.

Finance Department	
B Expenditure	
To verify whether the working capital loans have been restructured as per TRP?	Quantum of working capital loan restructured as short term and long term loans and whether this was as per plan and as per approved schedule
Whether the AIL could provide adequate securities needed for restructuring the loans and the effect of any shortcomings?	Whether the AIL could create the pool of securities within time The effect of any deviations on part of the AIL and its effect in terms of additional interests levied by banks on the AIL

Whether the AIL is meeting its re-payment obligations as per schedule and the effect of any deviation?	Has the AIL been making timely repayments of loan instalments and interest Penal interest due to delay, if any, in repayment of loans and interest.
Whether the AIL has proper system for verification of correctness of bills payment and has properly accounted	Correctness of fuel and oil bills, bills passed by miscellaneous billing section, local bill passing and staff claims. Expenditure incurred on Insurance and Haj operations Whether statutory obligations like Income tax, GST, Provident fund dues are paid on due date and extra expenditure due to delay in payment of statutory dues Accounting of stores accounts Whether the station expenditure returns are verified and accounted properly Expenditure related to GSA, GDS, SAP, SITA circuit, hosted PSS and computer reservation are properly verified and accounted.
Whether the AIL is preparing capital and revenue budgets annually and revised based on actual financial position	Preparation of capital budget and revenue budget and its periodical revision
Whether the AIL have proper system of treasury management and banking	Whether there is any idling of funds in current accounts Whether bank reconciliation statements are prepared monthly Whether there is proper authorisation for banking operations
C. Revenue	
Whether the passenger sales revenue and Cargo revenue realised on time and action is taken to recover the outstanding balances	Whether the AIL has done passenger-wise revenue reconciliation Whether billing to customer airlines are done and recoveries are made on time Whether action taken to recover the outstanding balances from cargo agents Agreements with General Sales agents and delay in remittance by GSA Legal cases initiated for recovery of dues
Whether there is proper system of raising invoices and recovery of dues from Government	Whether there is any delay in issuing invoice for VIP operations, Armed Forces, Lok sabha or any other Government agencies Action taken for recoveries of dues from Government agencies Whether Haj revenue claimed on time and action taken on outstanding balances
Whether the insurance claims/ miscellaneous billing are preferred and received in time	Whether there is any delay in preferring any insurance claims

	<p>Action taken to receive outstanding insurance claims</p> <p>Whether supplier credit has been utilised properly</p> <p>Whether billing of services provided to other Airlines like security services, loaning of equipments, engineering services are preferred and realised on time.</p>
D. Properties and Facilities Department	
<p>Whether the AIL has been able to meet the target of monetisation of its assets?</p> <p>The reasons for the inability of the AIL to achieve its monetisation targets and whether adequate action is being taken by the AIL in this regard</p> <p>The effect of short monetisation of assets on the financial position of the AIL</p>	<p>Were the assets to be monetised identified and a list of assets to be monetised yearly prepared?</p> <p>What are the assets that have been monetised so far and the amount realised by the AIL and whether the realisation was as per expectation?</p> <p>Whether the availability of assets for monetisation (title deeds, NOCs, etc) had been correctly assessed?</p> <p>What attempts have been made by the AIL for acquiring title deeds, NOCs for leasehold properties and other statutory clearances?</p> <p>What are the expenses incurred by/ likely liability of the AIL (if any) for acquiring title deeds, NOCs etc.?</p> <p>What is the present status of the identified properties and the problems faced by the AIL for their monetisation?</p> <p>Whether the AIL has taken/ is taking necessary steps for achievement of its monetisation targets?</p>
<p>Whether civil contracts/ repairs and maintenance of properties are carried out regularly.</p>	<p>Lapses in repair and maintenance of properties</p>
E. Human Resource Management	
<p>a) To examine whether the efforts taken for timely implementation of recommendations of Dharmadhikari Committee were adequate for wage rationalization</p>	<ul style="list-style-type: none"> • Whether recommendations of Dharmadhikari Committee have been implemented? • Whether Ministry/Cabinet has approved the same?
<p>b) To examine whether timely actions were taken to rationalize PLI as per milestone set by GoM</p>	<ul style="list-style-type: none"> • Were timely and effective steps taken for implementation of recommendations of Dharmadhikari Committee for wage rationalization including PLI? • Were such efforts fruitful? • If there were delays / deviations, were the factors causing them within the control of AIL • How actually the rationalization of PLI was carried out and implemented in timely manner?

	<ul style="list-style-type: none"> • Whether the envisaged benefit of implementation of recommendations of Dharmadhikari Committee for wage rationalization was achieved during audit period?
c) To verify steps taken for man power integration in terms of designation and responsibilities.	<ul style="list-style-type: none"> • What is the level up to which the man power integration has been actually achieved? Whether the same is as planned? If not what are the reasons for backlog?
d) To scrutinize the actions taken for finalisation of comprehensive HR policies and its implementation	<ul style="list-style-type: none"> • Whether the comprehensive HR policies have been finalized and introduced?
e) To examine efforts taken for formulating and implementing VRS	<ul style="list-style-type: none"> • Whether the formulation and implementation of VRS has been successfully done as contemplated? If not, what are the reasons for the delay or change in management decision in this regard? • Whether staff has been reduced by way of VRS scheme, long leave and transfer of staff of MRO and GH business.
f) To examine whether AIL was able to achieve the desired impact by changes in HR management to support its turnaround and financial restructuring.	<ul style="list-style-type: none"> • In what way, has all the above, contributed to AIL's turnaround and financial restructuring.
g) To examine whether the assumptions remained valid during the period of audit	<ul style="list-style-type: none"> • What were the basis of assumptions made in formulating the various HR Issues • Review of total sanctioned strength viz a viz men in position. • Reasons for excess/shortage if any. • Ratio of operating staff vs non-operating staff and expenditure thereof. • If there is shortage of Pilots, the impact of the same on revenue as well as on time performance. • Whether the Civil Aviation Rules are being complied in respect of training, FDTL and Medical examination of operating Staff. • Training imparted to the Pilots and Crew members and expenditure incurred on the same. • Review of policy regarding training to pilots of Narrow Body aircraft. • Review of the service conditions of pilots and crew members. • Review of cost benefit analysis on training of pilot and crew members at the time of accretion.

	<ul style="list-style-type: none"> • Total revenue loss due to cancellation/delay of flight due to shortage of pilots and crew members. • Review of roaster in respect of Pilots and cabin Crew staff.
F. Planning & International Relations department	
Whether the Government had a laid down bilateral policy and whether this policy was implemented during audit period.	Adherence to the laid down policy of the Government - deviations, if any and reasons for such deviations.
Whether additional bilaterals were granted by GoI during audit period and how it affected AIL.	<p>The additional bilateral entitlements that have been granted by GoI during audit period</p> <p>The stated position of AIL on such additional bilaterals.</p> <p>The routes on which the additional bilaterals have been allowed and the impact of it on AIL.</p>
Whether AIL was able to utilise its bilateral entitlements and the reasons for non utilisation	<p>What was the percentage utilisation of bilateral entitlements by AIL on major routes</p> <p>What were the reasons for under-utilisation.</p>
Cargo Department	
Whether Cargo policy has been reviewed periodically to cop up with market condition	<p>Non review of Cargo sales and marketing policy</p> <p>Non review of pricing policy</p> <p>Non review of incentive policy</p>
Whether consumers are billed correctly and commission/incentives to Cargo agents are paid as per policy	<p>In accurate billing of consumers</p> <p>Lapses in payment of commission/incentives to agents</p>
Whether steps has been taken for realisation of dues from defaulted cargo agents	<p>Non realisation of dues in time</p> <p>Delay in initiating legal actions against defaulted agents</p>
Whether Service Level Agreements(SLA) with Ground Handling Agencies(GHA) were reviewed periodically	<p>Delay in renewal of SLA with GHA</p> <p>Non levy of penalty for non-achievement of standards as per SLA</p>
G. Medical Services Department	
Whether empanelment of Hospitals/Chemists were done as per CVC guidelines/Manual of procurement of services	<p>Non-compliance to CV guidelines/Manual of procurement of services for empanelment of Hospitals/Chemists</p> <p>Delay in renewal of agreements and rates</p>

Whether payments to hospital/Chemists were done as per agreement	Discrepancies in payment to hospitals/Chemists Verification of entitlement of each categories of employees
H. Security Department	
Whether the agreements with customer airlines were reviewed periodically and renewed in time	Non review of clauses in agreement with customer airlines Delay in renewal of agreement Variation in agreement provisions of different customer airlines
Whether customer airlines were billed as per SLA and dues were realized in time	Discrepancies in invoice with agreement Delay in realisation of dues from customer airlines
Whether assessment of man power requirements were done properly	Shortage of manpower Extra expenditure due to overtime
Compliance to BCAS circular and directions of DGCA	Short comings pointed out in compliance of BCAS circulars Shortage of security equipments and inadequate training to staff
I. Material management Department	
Whether there exists a system of planning for material procurement	Whether there exists a well-documented purchase policy containing detailed purchase procedures, guidelines, and proper delegation of powers?
	whether the purchase policy if any was formulated in accordance with the Manual of Procurement of Goods (MPG) issued by Government of India and CVC guidelines
	Have appropriate time frames for each stage of procurement, to reduce delays in meeting requirements and make concerned purchase officials more alert?
	Whether there is Annual plan and purchase plan for material procurement?
	Whether closing stock in hand, materials in pipeline and tender order in process were considered in preparation of Annual plan/ purchase plan?
	Whether detailed recording/ documentation procedures of all procurement exist
Whether transparency/ financial propriety were ensured during the stages of tendering, evaluation and award of contract	Whether sufficient publicity had been given for Notice inviting tenders?
	Whether specifications are clearly spelt out?
	Whether sufficient time is provided for submitting tender documents
	Whether eligibility criteria is clearly mentioned and properly evaluated?
	Whether any post tender changes have been made in specifications/ parameters?

	Whether re-tender resorted to in case of single bidder?
	Whether any negotiations have been made/conducted with lowest bidder only?
	Whether the AIL is maintaining vendor list and the list is periodically reviewed and vendor development process is in place
	Whether there is time delay in tendering process?
	Whether the successful bidder is selected in a transparent manner?
	Whether terms and conditions of tender safeguard the financial interest of the AIL?
	Whether there exists uniform terms and conditions followed?
	Whether the required EMD/ Security Deposit were collected as per the terms of the contract?
	Whether the procurement of additional quantity in excess of awarded quantity is at the rate accepted in the tender?
	Whether any undue benefit is given to the suppliers by modifying the terms and conditions in tender?
	Whether there is case of retendering due to non-supply?
Verify whether procurement was carried out as per extant rules and in accordance with approved delegated financial powers	Whether purchase decisions are made on the basis of authenticated/ need based indents from concern Departments?
	Whether purchase committee exists for deciding on each purchase?
	Whether Purchase orders are issued as per delegation of powers?
	Whether economy of purchase is ensured?
Whether there is an effective system of supply and receipt of materials in order to ensure uninterrupted operation	Whether the materials were supplied as per the scheduled delivery?
	Whether the delivery scheduled is subsequently modified in the event of belated supply?
	Whether the item wise cost analysis is reviewed by AIL?
	Whether supply of materials is according to the actual current requirement of the year of purchase plan?
	Whether there is any instances of obsolete stores and spares
	Whether there are instances of interruption in operations due to non availability of materials in time
Whether the payments were released to contractor were as per agreed terms	Whether the AIL recovered the risk and cost from defaulted supplier in the case of initiating retender?

	Whether penal charges are levied on supplier for belated supply/non supply?
	Whether prices are re fixed in the event of fall in price in the procurement of additional quantity?
	Whether price variation clause is applied with period of scheduled supply?
	Whether Statutory deductions have been made from the bills of the suppliers
	Whether the payment is made against the supplied items?
	Whether adjustments has been made from the claim of the suppliers due to variation in quality parameters
	Whether the rejected items are timely replaced?
J. Commercial Department	
Whether the sales and marketing activities are carried out efficient and effective manner	<p>Comparison of targets with actual performance on revenue and profitability</p> <p>Action taken on performance monitoring of sales, seat factors, market research and analysis</p> <p>Establishment and administration of dedicated sales force units and its target and achievements</p> <p>Effectiveness of advertising and sales promotion schemes</p> <p>Effectiveness of FFP Schemes</p>
Whether revenue management, industry affairs and pricing were carried out efficiently and effectively	<p>Whether optimal allocation of seat capacity was carried out to maximize flight wise revenue</p> <p>Whether summer and winter schedules were updated in SITA PSS on time</p> <p>Whether there was effective pricing and incentive policies on route network</p> <p>Whether there was proper monitoring of fares/facilities offered by competitors</p> <p>Whether reservation automation unit deals with automation issued pertaining to SITA PSS/GDS/BDIT/Ancillary Revenue Services/ Web sales platforms etc on time</p> <p>Certification of invoices raised by GDS and periodic renewal of GDS agreements</p> <p>Tracking of receipt of BIDT and its audit</p>
Whether AIL managed to utilize its historical slots?	<p>Did AIL utilize its prime slots or were they surrendered or were other airlines allowed to use them?</p> <p>The reasons for surrender of prime slots by AIL and taking up less profitable / non-prime slots, if any on selected key routes.</p>
To assess the route analysis done by the AIL for international routes and the changes made as a result in the	The un-economic international routes run by AIL.

<p>route planning and scheduling including introduction of new routes</p> <p>To assess the action taken by the AIL in curtailing/ eliminating loss making flights/ routes</p> <p>To assess the efforts taken by the AIL to operationalization of the hub at Mumbai</p>	<p>How un-economic routes have been rationalized (a selection of routes altered would be analyzed) and their effect</p> <p>The cash loss making routes that were terminated and how the freed resources were utilized</p> <p>The new routes that have been introduced and whether the expectations of their profitability have been realized</p> <p>The progress of work vis-à-vis plans for operationalizing the hub at Mumbai</p> <p>Estimated effect of non-operationalization of the Mumbai hub by the AIL</p>
<p>To assess the efforts taken by AIL to enhance profitability of the domestic routes</p>	<p>The route profitability analysis of domestic routes of AIL</p> <p>The constraints, if any, of operating some non-profitable routes and the compensation received against their operation</p> <p>The efforts taken at inducting new domestic routes and rationalizing existing domestic routes.</p>
<p>Whether the flight operations were conducted as per DGCA in India and other foreign authority where AIL flight operates</p>	<p>Failure to comply DGCA circulars and rules</p> <p>Failure to comply rules/ directions of other foreign authority</p>
<p>Whether there was plan for recruitment of pilots and flight dispatchers</p>	<p>Delay in recruiting pilots and flight dispatchers</p> <p>Cancellation/delay in flight operation due to shortage of staff</p> <p>Optimum utilization of available crew</p> <p>Compliance to flight duty time limitations and maintenance of records</p> <p>Payment of allowances to cockpit crew</p>
<p>Whether smooth functioning of flight dispatch to all stations were ensured</p>	<p>Hotel accommodation arrangements at various stations for cock pit crew</p> <p>Fuel arrangements at various stations</p> <p>Temporary posting of cockpit crew at stations</p>
<p>Whether licensing and training to crew were ensured as per rules and regulations</p>	<p>Under utilization of simulators and avoidable expenditure on third party simulators</p> <p>Delay in renewal of license of crews</p>
<p>K. Inflight Services Department</p>	
<p>Whether there was plan for recruitment of cabin crews</p>	<p>Delay in recruiting/training cabin crew</p> <p>Cancellation/delay in flight operation due to shortage of staff</p> <p>Optimum utilization of available cabin crew</p>

	Compliance to flight duty time limitations and maintenance of records Payment of allowances to cabin crew
Whether smooth functioning of inflight services were ensured	Hotel accommodation arrangements at various stations for cabin crew Delay in finalization of inflight Entertainment Contracts Temporary posting of cabin crew at stations Delay in finalization of catering contracts Management of duty free concessionaire for onboard duty free sales
L. Vigilance Department	
Whether all vigilance activities were carried out as per manual	Proper registration of complaints Identification of sensitive areas and surprise inspection in sensitive areas Delay/non-production of records to Vigilance Department Job rotation in sensitive areas Scrutiny of contract/purchase files/work files

Apart from applying routine audit checks and other aspects concerning the operational performance of the organization the adequacy of Insurance effected on aircraft, vehicles and crew and see that rebate is claimed for the periods during which aircraft or vehicles were out of operation may be examined. The following are some of the aspects, which are required to be examined:

1. See from the Insurance Claims Recoverable Register that claims is promptly raised and recovered.
2. Examine charter agreements to see whether rates are in accordance with the terms of agreement. Ensure that wherever there are deviations in respect of the clauses of the agreements, correct charges as per rules are recovered.
3. Critically examine the statements of expenditure sent by various stations to the Central Accounts Office at Santacruz.
4. Check entries in the fuel and oil register showing guaranties filled in the tanks of the aircraft with the flight reports and bills received from the oil companies with the payments effected.
5. See that fuel is uplifted at the cheapest available rate at stations and maximum advantage taken thereof.
6. Check hourly consumption of fuel of each aircraft to see that economy is observed.
7. Check payment of Sales Tax and local taxes, if any, paid and justification therefore.
8. Examine Customs Duty drawback claimed by oil companies and passé don to the company with the entries in the Register and the statements received from them with a view to see the correctness of recoveries effected. It may also be ensured that prompt action is taken by oil companies to claim drawback and pass it on to the company.

9. Review wide variations in annual expenditure on fuel and oil, on maintenance, overhaul and other expenditure incurred from year to year.
10. Review variations in time taken in workshops for major overhaul of aircraft to see that idle time is not booked on any of the jobs.
11. Compare Annual Revenue Estimates with the actual for the year in respect of various sections. Examine in detail un-remunerative routes/stations, if any.
12. Examine the expenditure on publicity and sales promotion with reference to the revenue earned.
13. Ensure that the expenditure on advertisement and publicity is in conformity with the advertising policy with reference to relevant Resolutions of the Board of the company and the revenue and expenditure ratio fixed.
14. Critically compare the revenue and expenditure on new routes opened with that of estimated cost of operation and the estimated revenue on the basis of which the sanction was accorded.
15. See the Maintenance Services are properly and economically utilised from various workshops and outside parties are billed promptly for the service rendered by the company.
16. Compare the average time taken for the various maintenance and overhaul works carried out from time to time.
17. Compare the average rate of catering charges incurred per passenger and crew at different uplift stations.
18. Examine the catering agreements and wastage of meals/food and reasons therefore.
19. Examine that crew is economically utilised to the best advantage of the company. Idle work force should not be allowed. Night halts of crew overlapping shift pattern should be objected to.
20. It may be examined that the available equipment are utilised properly and are not in excess of the requirements.
21. Review the agreements with outside airlines and see that charges are properly and promptly recovered for various services rendered.
22. Maintenance and other expenditure on equipment may be reviewed to ensure that it is reasonable.
23. Utilisation of the labour force may be reviewed.
24. Whether the rates for the various services are revised periodically keeping in view the changes in the material and labour costs etc.
25. Examine all the contracts for hotel accommodation, transport and for other miscellaneous services and the handling contracts to check that payments and receipts are as per the contract and the contract clauses are not prima facie disadvantageous to the company.
26. Internal Audit reports on the respective depts. / units/ station may be reviewed.

Audit Norms

Sl. No.	Name of the unit	Nature of activity/ record	Quantum of Audit
	Headquarters		
1	CMDs Office/ Corporate Office	<ul style="list-style-type: none"> • Approvals given for high value contracts/purchases of high value capital items and appointment of consultants/solicitors etc. • Correspondence with administrative ministry/parliamentary questions/matters with COPU/other Govt. departments like Income Tax, Customs etc. • Correspondence with various units of the company and with holding company (Air India Ltd.) • General Review of Records relating to other correspondence and other records and registers maintained. 	<p>100%</p> <p>100%</p> <p>50%</p> <p>30%</p>

Hotel Units (Delhi and Srinagar*) * Audited by O/o A.G (J&K)			
1	Purchase	<ul style="list-style-type: none"> • Scrutiny of purchase order placed for procurement of various grocery items, eatables, crockery, linen etc. • Scrutiny of purchase orders placed for availing various services like newspaper, magazines, transportation, laundry etc. • Matters relating to property tax, electricity and water bills. • General scrutiny of contracts given to outside parties for civil, mechanical, electrical, sanitary and plumbing services and verification of contractors bills. • General scrutiny of other correspondence and registers maintained 	<p>Value >Rs. 50 lakh 100%</p> <p>Value < Rs. 50 lakh but > 10 lakh 50%</p> <p>Value < Rs.10 lakh 30%</p> <p>Value >Rs. 1 lakh 100%</p> <p>Value < Rs.1 lakh 50%</p> <p>50%</p> <p>Value >Rs. 1 lakh 100%</p> <p>Value <Rs. 1 lakh 50%</p> <p>30%</p>

2	Finance and Accounts	<ul style="list-style-type: none"> • Daily revenue reports for Restaurant/Bar/Banquet Hall and other Miscellaneous Income and daily cash collection. • Billing for services provided to various clients/guests. • Verification of cash book, bank statements and reconciliation statements. • Verification of sundry debtors, efforts made in realization, justifications for granting credits, write-off approvals for bad debts etc. • Scrutiny of payment vouchers. • Annual Accounts Audit. 	<p>100% scrutiny for one week and remaining on test check basis.</p> <p>100% scrutiny for one week and remaining on test check basis.</p> <p>100% scrutiny for one month</p> <p>Above Rs. 3 lakh 100%</p> <p>Less than Rs.3 lakh 50%</p> <p>100% scrutiny for one month</p> <p>Supplementary accounts audit u/s 619 (4) of the companies act 1956.</p>
3	Stores	<ul style="list-style-type: none"> • Scrutiny of stock registers, GRNs supply invoices, issue vouchers, Bin cards etc. • Other general correspondence registers maintained in the stores. 	<p>50%</p> <p>30%</p>
4	Personal	<ul style="list-style-type: none"> • Review of agreements/MOUs with various employees unions, its financial implications etc. • Review of recruitment and promotion policy, fixation of pay on promotion etc. • Review of expenditure incurred for providing welfare services to the employees including 	<p>50%</p> <p>50%</p> <p>50%</p> <p>30%</p> <p>30%</p>

		<p>canteen and staff transport service.</p> <ul style="list-style-type: none"> • Review if legal/arbitration cases • General scrutiny of other correspondence files and registers maintained. 	
5	Front Office	<ul style="list-style-type: none"> • Scrutiny of arrival/departure register. • Daily room occupancy and revenue reports. • Scrutiny of complementary/concessional bookings made • General scrutiny of other correspondence files and registers maintained. 	<p>30%</p> <p>100% for one week remaining on test check basis.</p> <p>100% for one week remaining on test check basis.</p> <p>30%</p>
6	Food and Beverages	<ul style="list-style-type: none"> • Scrutiny of daily sales reports and collection statements from Restaurants, Bar and Banquet Hall. • Review of Kitchen Order Tokens/Indents • Food cost/wastage analysis • General scrutiny of other correspondence files and registers maintained. 	<p>50%</p> <p>50%</p> <p>100% for major items remaining on test check basis.</p> <p>30%</p>
7	House Keeping	<ul style="list-style-type: none"> • General scrutiny of correspondence files and registers maintained. 	30%
8	Public Relations & Marketing	<ul style="list-style-type: none"> • Review of marketing/publicity policies. • Review of efforts made to obtain group bookings or 	<p>30%</p> <p>30%</p> <p>30%</p>

		<p>accommodation contracts for crew of airlines etc.</p> <ul style="list-style-type: none"> • General scrutiny of correspondence files and registers maintained. 	
9	Engineering	<ul style="list-style-type: none"> • Review of repairs/modifications undertaken. • General scrutiny of correspondence files and registers maintained. 	<p>Value > 1 lakh 100%</p> <p>Value < 1 lakh 50%</p> <p>30%</p>
10	Security and Vigilance	<ul style="list-style-type: none"> • Review of theft/defalcations or any other cases of such nature. • General scrutiny of correspondence files and registers maintained. 	<p>50%</p> <p>30%</p>
<p>Fight Catering Units</p> <p>(Only two units viz. one at Delhi and another at Mumbai).</p>			
1	Purchase	<ul style="list-style-type: none"> • Scrutiny of purchase order placed for procurement of various grocery items, eatables, crockery, linen etc. • Scrutiny of purchase orders placed for availing various services like laundry, transportation, etc. • Matters relating to property tax, electricity and water bills. • General scrutiny of contracts given to outside parties for giving civil, mechanical, electrical, sanitary and plumbing 	<p>Value > Rs. 50 lakh 100%</p> <p>Value < Rs.50 lakh but > 10 lakh 50%</p> <p>Value <Rs. 10 lakh 30%</p> <p>Value >Rs. 1 lakh 100%</p> <p>Value <Rs. 1 lakh 50%</p> <p>50%</p> <p>Value > Rs.1 lakh 100%</p> <p>Value < Rs.1 lakh 50%</p> <p>30%</p>

		<p>services and verification of contractors bills.</p> <ul style="list-style-type: none"> • General scrutiny of other correspondence and registers maintained 	
2	Finance and Accounts	<ul style="list-style-type: none"> • Billing for services provided to various clients/guests. • Verification of cash book, bank statements and reconciliation statements. • Verification of sundry debtors, efforts made in realization, justifications for granting credits, write-off approvals for bad debts etc. • Scrutiny of payment vouchers. • Annual Accounts Audit. 	<p>100% scrutiny for one week and remaining on test check basis.</p> <p>100% scrutiny for one month</p> <p>Above Rs. 1 lakh 100%</p> <p>Less than Rs. 1 lakh 50%</p> <p>100% scrutiny for one month</p> <p>Supplementary accounts audit u/s 619 (4) of the companies act 1956.</p>
3	Stores	<ul style="list-style-type: none"> • Scrutiny of stock registers, GRNs supply invoices, issue vouchers, Bin cards etc. • Other general correspondence registers maintained in the stores. 	<p>50%</p> <p>30%</p>
4	<i>Engineering</i>	<ul style="list-style-type: none"> • Review of repairs/modifications undertaken. • Scrutiny of utilisation of various flight catering equipments alongwith scrutiny of purchase of new such equipment, justification for purchase etc. 	<p>Value > Rs.1 lakh 100%</p> <p>Value < Rs. 1 lakh 50%</p> <p>50%</p> <p>30%</p>

		<ul style="list-style-type: none"> • General scrutiny of correspondence files and registers maintained. 	
5	Administration	<ul style="list-style-type: none"> • Scrutiny of overtime payments, appointment of casual laborers, in light of standard force versus actual men-in-position etc. • Review of legal/arbitration cases. • General scrutiny of correspondence files and registers maintained. 	<p>50%</p> <p>30%</p> <p>30%</p>

CHAPTER -III

UPSTREAM CHAPTER

OIL AND NATURAL GAS CORPORATION LIMITED (ONGC)

1. INTRODUCTION

The ONGC was born as a Directorate of Geological survey of India on 14 August 1956 under the control of Ministry of Natural Resources in the Government of India. With the enactment of Oil and Natural Gas Commission Act, 1959 it became a Statutory body called Oil and Natural Gas Commission (ONGC) with effect from (w.e.f) 15th October 1959. With a view to make ONGC more independent and in terms of the recommendations of a Committee set up to look into the Organization of ONGC, the Central Government decided to restructure the Commission into a Company under the Companies Act, 1956. As a result, the Oil and Natural Gas Corporation Limited (ONGC Ltd.) was incorporated on 23 June 1993, and the assets, rights and liabilities of the Commission were taken over by the ONGC Ltd. w.e.f. February 1994.

ONGC VISION

ONGC vision is to be global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

A ONGC MISSION

World Class

- Dedicated to excellence by leveraging competitive advantages in R&D and technology with involved people.
- Imbibe high standards of business ethics and organizational values.
- Abiding commitment to safety, health and environment to enrich quality of community life.
- Foster a culture of trust, openness and mutual concern to make working a stimulating and challenging experience for our people.
- Strive for customer delight through quality products and services.
- **Integrated in Energy Business**
- Focus on domestic and international oil and gas exploration and production business opportunities.
- Provide value linkages in other sectors of energy business.
- Create growth opportunities and maximize shareholder value.
- **Dominant Indian Leadership**
- Retain dominant position in Indian petroleum sector and enhance India's energy availability.

In September 2010, Government of India conferred ONGC 'Maharatna' status with the objective to enable ONGC to be a global giant and decided enhanced autonomy and delegation of decision-making

authority to Board. Thus, the company is empowered to take decisions on projects independently of Government for values up to Rs 5000 crores.

B Major Subsidiaries/Joint Ventures

The major subsidiaries of ONGC are ONGC Videsh Limited (OVL), Mangalore Refinery and Petrochemicals Limited (MRPL) and Hindustan Petroleum Corporation Limited (HPCL). ONGC Petro additions Limited (OPaL), is a joint venture company promoted by Oil and Natural Gas Corporation (ONGC) and co-promoted by GAIL and GSPC. incorporated in 2006. ONGC Tripura Power Company Limited (OTPC) a joint venture company of ONGC, IL&FS Energy Development Co. Ltd. and Govt. of Tripura, Mangalore SEZ, a Special Purpose Vehicle, was incorporated on 24th February, 2006 with participation of ONGC, Infrastructure Leasing & Finance Corporation (IL&FS), Karnataka Chamber of Commerce and Industries (KCCI) and Karnataka Industrial Area Development Board (KIADB). ONGC Mangalore Petrochemicals Ltd. (OMPL), a company promoted by Oil and Natural Gas Corporation Limited (ONGC) is setting up an aromatic complex along with Mangalore Refineries & Petrochemical Limited (MRPL). Dahej SEZ, a joint venture between Gujarat Industrial Development Corporation (GIDC) and ONGC, was incorporated on 24th Sept 2004. The ONGC accorded approval at its 296 meeting dated 21/08/2017 to acquire 51.11% shareholding in HPCL from Government of India to reap the potential benefit from vertical integration across oil and gas value chain. The objective was to combine the various central public enterprises to give them capacity to bear higher risks, avail economies of scale, take higher investment decisions and create more value for the stakeholders and create and 'Oil Major' which will be able to match the performance of international and domestic private sector oil and gas companies. The integrated oil company will be able to balance upstream and downstream pressures despite volatility in crude prices, will lead to lower earnings volatility, diversified cash flows and lower business risk resulting in higher Price Earnings multiples and valuations resulting in higher shareholder value.

The board of ONGC had on 19 January 2018 approved the acquisition of the entire 51.11 per cent shareholding (778,845,375 equity shares) with the President of India, at a cash purchase consideration of ₹ 473.97 per share on 20 January 2018 for a consideration of ₹ 36915 Crore.

C OBJECTIVES

The main activities of ONGC Ltd. are as follows: -

- i) To plan, promote, organize and implement programmes for the development of petroleum resources and the production and sale of petroleum and petroleum products produced by it;
- ii) To plan, promote, organize, exploit and implement programmes for the efficient development of petroleum and petroleum products and alternate resources of energy;
- iii) To carry out exploration and to develop and optimize production of hydrocarbons;
- iv) To carry on the marketing and distribution of all kinds of petroleum productions and to purchase, treat, blend, etc. certain other petroleum products;
- v) To establish, provide, maintain and perform scientific, technical, engineering, project management consulting/contracting services.

D MAJOR ACTIVITIES AND FUNCTIONING

ONGC is mainly engaged in the exploration for and exploitation of Hydrocarbon resources viz. crude oil, natural gas & Coal Bed Methane (CBM) and all other activities related thereto. Sedimentary rocks are major sources of hydrocarbons. Oil exploration is input deterministic and output probabilistic. Broadly, the process starts with prognostication and different types of geo-scientific surveys on the identified sedimentary basins. ONGC conducts 2D and 3D surveys both onshore and offshore area including deepwater areas. ONGC owns 124 onland rigs and 8 offshore rigs. In addition, ONGC has hired 26 onland and 26 offshore rigs. ONGC is using Sagar Vijay for deep waters drilling up to 900 meters. Sagar Sandhani is an offshore survey vessel (OSV), which has been upgraded in 2001 to have the capacity to conduct 3D survey in deep sea also. The information collected from these surveys is processed and interpreted to construct a logical model of the reservoir by using latest computer system available for geophysical interpretation. The model so obtained (which is dynamic in nature and revised at different stages of exploration) is tested by drilling exploratory wells. If the area proves to be hydrocarbon bearing, delineation wells are drilled to ascertain the extent of the field and its productivity.

Once it is proved that the field is economically viable to produce commercially, development scheme is drawn up. Feasibility Report for the project is prepared and wherever required PIB (Project Investment Board) approval is taken. Engineering Services is responsible for execution and maintenance of various offshore projects including construction of process, production, well, injection platforms and various pipelines. Drilling of development wells, laying of pipelines, installation of other production and processing facilities to put the field on regular commercial production is taken up after it is found feasible.

Development activities aim to obtain access to prove reserves and to provide facilities for the extraction, treating, gathering and storing the oil and gas. This also requires drilling and equipping developmental wells to construct and install production equipment. Work over operations and repairing of producing well would also be classified under development. ONGC has sophisticated facilities for conducting the production and testing activities including logging and chemical analysis of well fluids. If the well flow is not up to the minimum required level, ONGC adopts mechanical methods, gas and water injecting technology to increase well flow. ONGC has established 171 well platforms in the offshore area and other infrastructure to transport crude oil & gas to the production facilities.

Production activities involve the lifting of the hydrocarbons to the surface and in gathering, treating, processing and storing the oil and gas. These are the costs incurred to operate and maintain wells, related equipment and facilities. The production function comes to a stop when the hydrocarbons enter the delivery point i.e. at the outlet well on the production storage tank or at the first point at which oil, gas or gas liquids are delivered to a main pipeline, a common carrier, refineries or a marine terminal. Production also involves purification of crude and gas to a proper form in order to send it to the downstream refining process. The production processes are continuous and without any interruption due to climatic changes. The possible interruptions due to failure of plant and machinery would also be controlled to the barest minimum.

The crude produced is supplied to the various refineries and the gas is supplied to the Gas Authority of India Ltd. for further marketing. The Corporation also extracts valuable products LPG, C2-C3, NGL, etc. from the gas. Oil produced from Offshore is sent to URAN Onshore terminal for stabilisation. Later

it is sent to refineries. Associated gas from offshore is piped to URAN, which is converted to LPG, Ethane-Propane (C2-C3) and Naphtha and sent to consumers.

E ORGANISATIONAL SET UP

In 1984, ONGC was structured into major business groups viz. (i) Exploration (ii) Drilling (iii) Operations and (iv) Technical. Apart from above there was a fifth business group called Common Business Group and Transportation and Shipping offices at major port locations to look after imports of stores and spare parts, etc. ONGC further restructured its functions under Corporate- Rejuvenation Campaign (CRC). ONGC Board in its meeting held on 27th July 2001 approved implementation of Organizational restructure on the Assets-based concept throughout the organization. Under the Corporate Rejuvenation Campaign (CRC), ONGC created (i) Offshore Asset Structure (ii) Onshore Asset Structure (iii) Basin Structure (iv) Regional Office Structure (v) Services and (vi) Institutes. While Basin Managers are concerned with the exploratory blocks, exploratory drilling, interpretation of data and maintenance of production from exploratory fields, Asset Managers are concerned with production from development fields, work over and maintenance of wells, logistics support, maintenance of support services. The Corporation's corporate office is situated at Dehradun with its Registered office at New Delhi.

F UNITS OF ONGC:

(1) ASSETS/ BASINS/ PLANTS/INSTITUTES:

1. Mumbai High Asset, Mumbai
2. Neelam & Heera Asset, Mumbai
3. Bassein & Satellite Asset, Mumbai
4. Eastern Offshore Asset, Kakinada
5. Ahmedabad Asset, Ahmedabad
6. Ankleshwar Asset, Mehsana
7. Mehsana Asset, Mehsana
8. Rajahmundry Asset, Rajahmundry
9. Karaikal Asset, Karaikal)Cauvery(
10. Assam Asset, Nazira
11. Tripura Asset, Agartala
12. Cambay Asset, Cambay
13. CBM Bokaro
14. Jorhat Asset, Jorhat
15. HPHT Asset, Kakinada
16. Rajasthan Kutch Onland Exploratory Asset)RKOE(
17. Assam Arakan Fold Belt Exploratory Asset)AAFBE(

(2) BASINS

1. Western Offshore Basin, Mumbai
2. Western Onshore Basin Vadodara
3. KG PG Basin, Chennai
4. Cauvery Basin, Chennai
5. Assam & Assam-Arakan Basin, Jorhat
6. MBA Basin and CBM Development Project, Kolkata/Bokaro
7. Frontier Basin, Dehradun

(3) PLANTS

1. Uran Plant, Maharashtra
2. Hazira Plant, Gujarat
3. C2 C3 C4 Plant, Dahej Plant, Gujarat

(4) Institutes

1. Keshava Dev Malaviya Institute of Petroleum Exploration)KDMIPE(, Dehradun
2. Institute of Drilling Technology)IDT(, Dehradun
3. Institute of Reservoir Studies)IRS(, Ahmedabad
4. Institute of Oil & Gas Production Technology)IOGPT(, Navi Mumbai
5. Institute of Engineering & Ocean Technology)IOET(, Navi Mumbai
6. Geo -data Processing & Interpretation Center)GEOPIC(, Dehradun
7. ONGC Academy, Dehradun
8. Institute of Petroleum Safety, Health & Environment Management)IPSHEM(, Goa.
9. Institute of Biotechnology &Geotectonics Studies)INBIGS(, Jorhat
10. School of Maintenance Practices)SMP(, Vadodara
11. Centre for Excellence in Well Logging)CEWELL (Vadodara
12. Regional Training Institutes, Navi Mumbai, Chennai, Sivasagar & Vadodara
13. ONGC Energy Centre Trust, New Delhi.

(5) SERVICES:

1. Chief Drilling Services, Mumbai
2. Chief Well Services, Mumbai
3. Chief Geo -Physical Services, Dehradun
4. Chief Logging Services, Baroda
5. Chief Engineering Services, Mumbai
6. Chief Offshore Logistics, Mumbai
7. Chief Technical Services, Mumbai
8. Chief Info-com Services, New Delhi
9. Chief Corporate Planning, New Delhi
10. Chief Human Resource Development, Dehradun
11. Chief Employee Relations, Dehradun
12. Chief Security, Dehradun
13. Company Secretary, New Delhi
14. Chief Marketing, New Delhi
15. Chief Corporate Affairs &Co-ordination, New Delhi
16. Chief Corporate Communication, New Delhi
17. Chief Material Management, Dehradun
18. Chief Technical Services, Dehradun
19. Chief Health, Safety & Environment, Mumbai
20. Chief Legal, New Delhi
21. Chief Medical, Dehradun
22. Chief Internal audit, New Delhi
23. Chief Commercial, New Delhi
24. Chief Exploration & Development, Dehradun

(6) OTHERS

1. EXCOM
2. Labs
3. Nhava Base
4. Offshore JV)PSC(

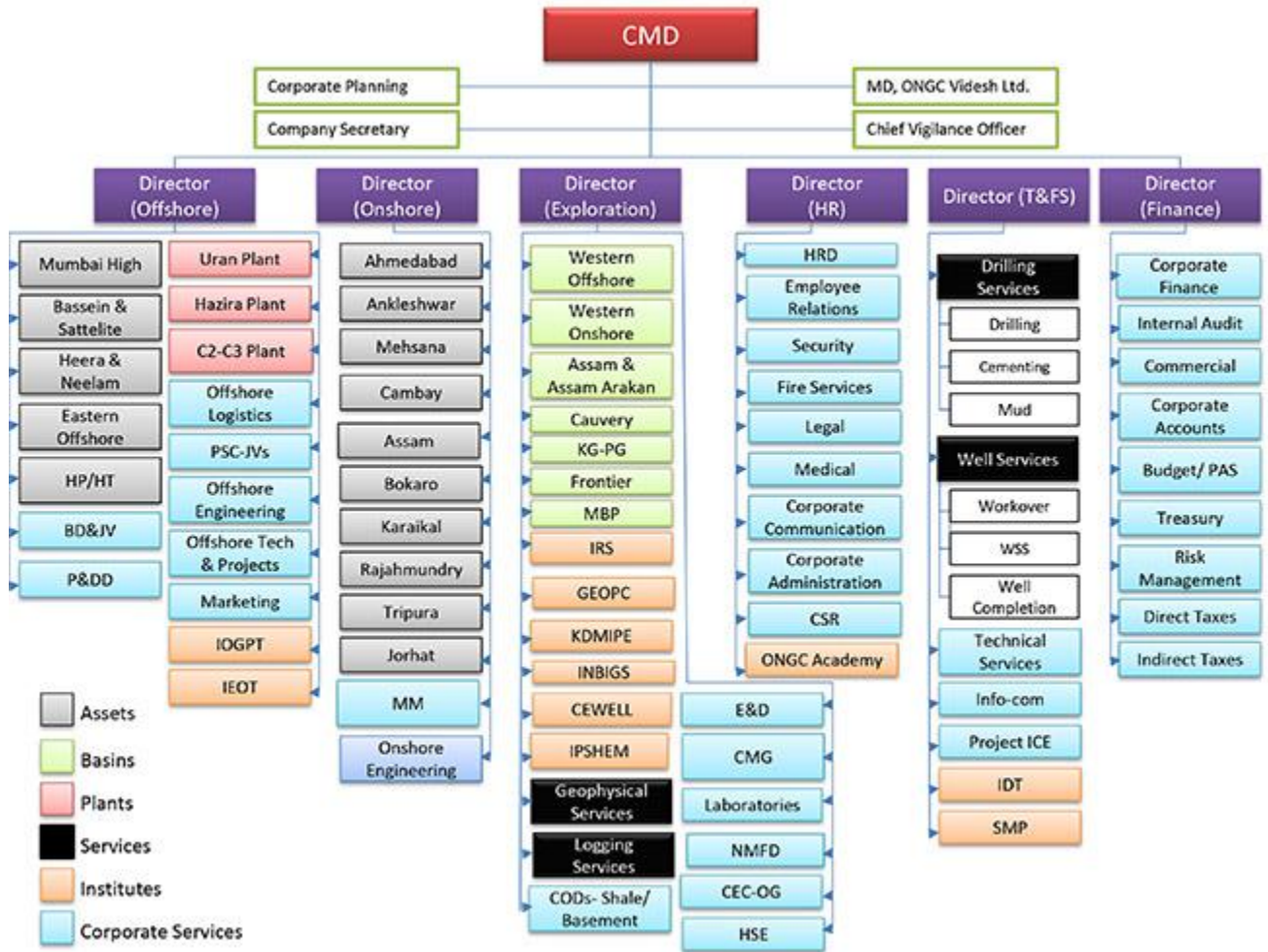
5. Carbon Management Group
6. JVOG-Rajasthan, Delhi
7. Corporate Health Safety and Environment

(7) **REGIONS**

1. Mumbai Region
2. Western Region, Baroda
3. Central Region, Kolkata
4. Eastern Region, Nazira
5. Southern Region, Chennai

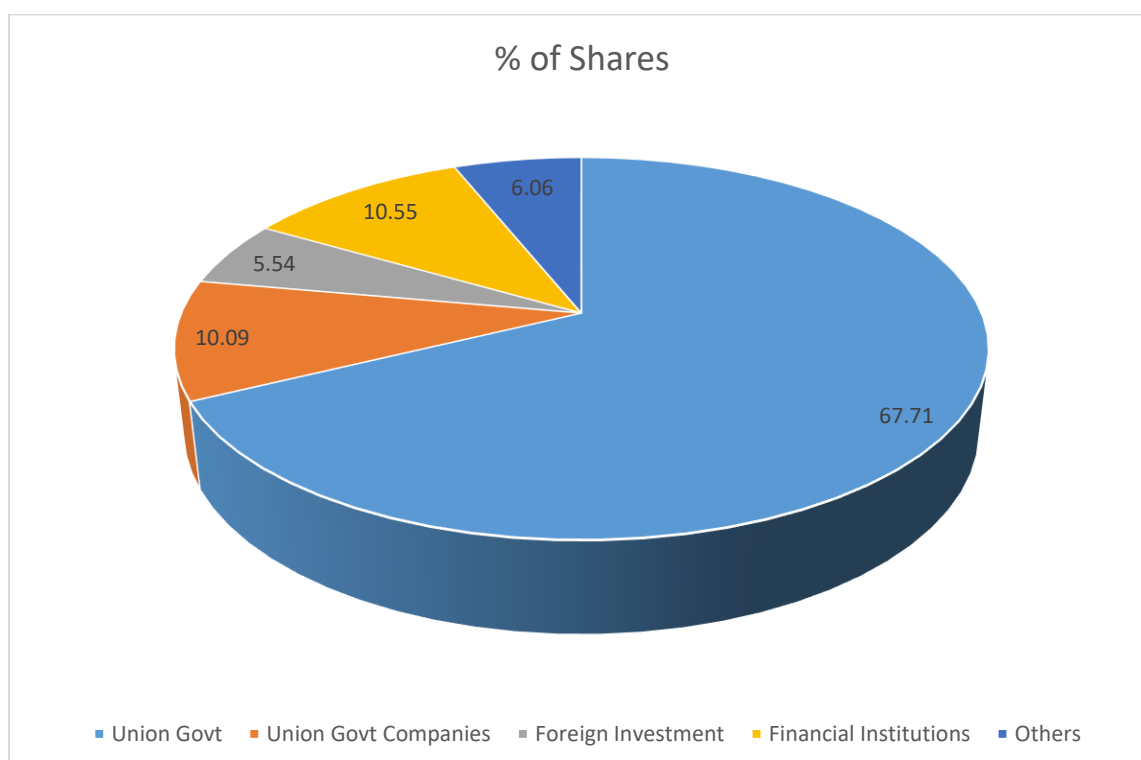
The Organogram of ONGC is given in as shown below:

Organogram



G CAPITAL STRUCTURE

S.No	Holders	Paid-up Capital (Rs in Lakh)
1	Union Government	434501.61
2	Union Government Companies	64764.34
3	Foreign Investments	35529.71
4	Financial Institutions	67960.01
5	Others	38907.57
	Total Paid up Capital	641663.24



I BUDGET AND PLANNING

(i) Utilization of Capital

Statement Showing ONGC - Utilisation of Capital Expenditure for Last 3 Years									
(Rs. Crore)									
Particulars	2015-16			2016-17			2017-18		
	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual
Survey	2,099	1,977	1,519	1,969	1,583	1,738	1,534	1,591	1,430
Exploratory Drilling	12,170	7,546	7,644	7,180	6,608	5,840	7,963	7,525	7,195
Development Drilling	8,925	7,185	7,117	9,827	9,455	9,600	9,048	8,513	7,005
Capital	10,745	11,012	10,747	9,138	10,051	9,804	10,308	10,776	11,816
GSPC Stake Acquisition in DDW Field(80%)	-	-	-	-	-	-	-	7,560	7,481
R & D	774	644	540	608	606	592	650	441	586
Non Operated JV's	1,276	1,180	670	566	540	406	451	646	321
Integration Projects**	260	1,923	1,874	19	38	26	13	37,080	37,068
Total Capex	36,249	31,467	30,110	29,307	28,882	28,006	29,968	74,133	72,902
Capex excluding GSPC and Integration Projects	35,989	29,544	28,236	29,288	28,844	27,980	29,955	29,492	28,353

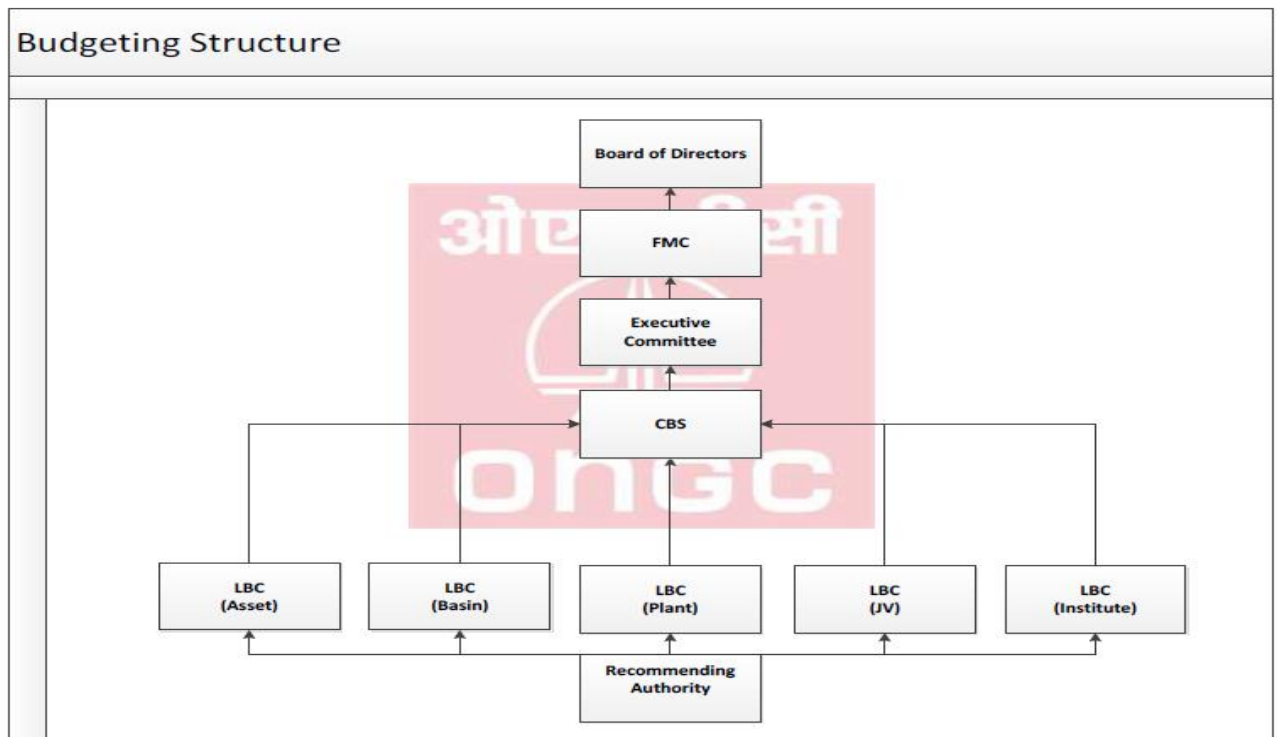
Note:- Integration Projects includes HPCL Stake Acquisition amounting to Rs. 36,915 Crore in RE and Actual 2017-18.

(ii) Budgetary Control

Powers of budget re-appropriation delegated under BDP chapter 3.

The budget planning exercise is initiated with the preparation of physical targets and formulation of the respective Schemes. The responsibility of Assets, Basins, Plants and Institutes shall be to create Schemes in consultation with the Service heads. Schemes once sanctioned by the Decide Authority (as per the iRAID framework) shall be submitted to the Locations Budget Co-ordinator (LBC) for compilation and onward movement to the CBS.

The chart below depicts flow of information and the functions/ personnel involved in the exercise of budgetary control.



(iii) Budgeting Structure

(iv) Role of Locations Budget Co-ordinator

The roles and responsibilities of the LBC are highlighted below:

- The LBC shall co-ordinate with MDTs to ensure timely submission of Schemes
- The LBC shall act as a point of contact for clarifying budgeting related issues
- On receipt of the Scheme, the LBC shall review the Schemes to ensure that sanctions have been received from appropriate authorities
- The LBC shall compile the Schemes received from Asset/Basin/Plant/institute and forward to CBS in a timely manner.
- The LBC shall liaise with CBS on a regular basis and disseminate information from CBS to other Scheme preparers

(v) Role of Corporate Budget Section

The CBS shall be primarily responsible for coordinating, compiling and assigning budgets to the various Schemes:

- The CBS shall be responsible for issuing circulars periodically on Scheme formulation and timelines
- On receipt of the compiled Scheme budget from the LBC, the CBS shall compile the outflows pertaining to the various Scheme for BE and RE
- The CBS shall present the annual budget plan/budget agenda to the EC , FMC and BoD, for approval
- Any suggestions arising from the EC meeting shall be communicated to LBC for further communication to the work centers
- CBS on budget approval shall upload the approved budget for procurement in SAP at the top node level .The same shall then be communicated to each work center for fund loading.

Budget for ONGC is being made for two years Current Year (Revised Estimates) and Next Year (Budget Estimates). The budget proposals are worked out under Natural Heads and converted to activities by allocation of services budget on the basis of physical targets of activities. The Board of Directors approves budget for ONGC.

Budget utilization is monitored on monthly basis. Various work centres compile the monthly expenditure report and submit to the Corporate Budget Section. Work centres are advised to provide activity wise budget utilization reports along with detailed reasons for variations, which is reviewed by the Management on periodic basis.

(vi) System of Financial Delegation

Post approval of budget, various work centres are authorized to initiate cases for sanctions/tendering as per powers delegated under Book of Delegated Powers (BDP). After formation of ONGC Limited, a new Book of Delegated powers was introduced in 1994 defining the powers of Board, CMD, and Functional Directors and below Board level executives in the company. The details of the delegations in respect of important items vested with Board, CMD and Functional Directors as per BDP 2009 have been given briefly in the table below:

(a)Opening & closing of offices in India and abroad and creating new activity centers

Authority/ Extent of power	Executive Committee (EC)/Full Powers
----------------------------	--------------------------------------

(b)Budget Re-appropriation under Budget items from one head to another without re-appropriation from plan to non-plan budget

Authority	Extent of power
CMD	CMD
Functional Director	<p>Capital item: Full powers of re-appropriation from one capital item to another, subject to the item for which re-appropriation is required falls within his functional area and sanctioning power.</p> <p>Revenue Item: Full powers for re-appropriation from one revenue item to another revenue item and from one revenue head to another revenue head in his functional area of budget.</p> <p>Reason for re-appropriation to be recorded</p>
2: Re-appropriation for non-budgeted revenue expenditure	
Authority	Extent of power
CMD	Full Powers
Functional Director	<p>Full powers for re-appropriation from one revenue item/head to another revenue item/head in his functional area of budget, provided approved budget is not exceeded.</p> <p>Reason for re-appropriation to be recorded.</p>

CAPITAL EXPENDITURE		
1: Administrative Approval & Expenditure sanction for Budgeted Capital Expenditure		
Authority	Extent of power	Remarks
Board	Proposals above Rs. 250 Crore with appraisal of Financial Institutions through concerned subcommittee of the Board.	Full Powers. Investment proposals shall be appraised by Established Merchant Bankers/ Financial Institutions and taken to the Board after consideration of the concerned sub-committee of the Board. Wherever deemed necessary, the proposals shall also be appraised by independent technical experts.
CMD.	UptoRs 250 Crore	Each Case
Functional Director	Upto Rs.50 Crore	Each Case
2: Administrative Approval & Expenditure Sanction for Non-budgeted Capital expenditure (Provisions for Non-budgeted capital items should be within the overall budget limit approved by the Board.)		
Authority	Extent of power	
CMD.	Upto Rs.50 Crore in each case	
Functional Director	UptoRs 10 Crore in each case	
This is subject to the condition that the expenditure is within the overall plan budget and there is no change in approved plan schemes on account of re-appropriation.		
3: Administrative Approval & Expenditure Sanction for Capital Expenditure (In excess of any approved capital scheme)		
Authority	Extent of Power	
CMD	Upto 10% of any Capital Scheme sanctioned by CMD provided revised estimate is within his power of sanctioning capital expenditure. Expenditure in excess of 10% will require approval of the Board	
Functional Director	Up to 10% of any capital scheme sanctioned by Functional Director provided revised estimate is within his powers of sanctioning capital expenditure. Expenditure in excess of 10% will require approval of CMD provided, revised estimate is within his power of sanctioning capital expenditure	
Revenue Expenditure		

1 : Administrative Approval & Expenditure Sanction for revenue expenditure other than hiring of oil field services	
Authority	Extent of power
CMD	Full powers
Functional Director	Contractual Services: Full powers Store & Spares: Full powers Other Revenue Expenditure: Upto Rs. 50 Crore in each case.
2: Administrative Approval & Expenditure Sanction for hiring of oil field (Hiring of drilling/workover rigs, hiring of all types of logistics services, hiring of seismic data acquisition, processing, interpretation services etc., hiring of cementing/ mud-logging/ SDMM/ drill jars/ bits or any other type of services related to Exploration, Drilling or Production activity)	
Authority	Extent of power
Board	Full Powers through concerned sub-committee of the Board
CMD	Upto Rs 1000 Crore in each case
Functional Director	Upto Rs 200 Crore in each case
3 : Additional Expenditure Sanction for hiring of oil field services	
Authority	Extent of power
CMD	Full Powers Note: Details of additional sanctions for all cases which were approved by the Board as per item D2, and other cases where total expenditure exceeds CMD's powers under item D2 (i.e. Rs 1000 Crore in each case) to be apprised to the Board.
Functional Director	Total expenditure (including additional sanction) within sanction powers as per item D 2 (i.e. Rs 200 crore in each case)
4: Administrative Approval and Expenditure Sanction for Acquisition of New Technology and Know-How	
Authority	Extent of power
Executive Committee (EC)	Upto Rs. 15 Crore in each case
CMD	Upto Rs.10 Crore in each case.
Functional Director	Upto Rs. 1 Crore in each case.

Note: New Technology and Know-how refers to all cases where technology is being introduced in the company for the first time/on pilot basis	
5: Business Development Consultancy/ Pre-feasibility studies/Feasibility studies, design, engineering of project covering preparation, processing and supervision of works	
Authority	Extent of power
Asset Manager (Mumbai-High)	Upto Rs. 300 Lakh
Level-I (others)	Upto Rs. 100 Lakh
Level-II (not below E-6)	Upto Rs.5 Lakh Each case

The full details of financial delegation are given in the Book of Delegation of Powers of ONGC.

II ACCOUNTING SYSTEM:

Oil and gas sector occupies a very special space in growth and development of any economy and plays a pivotal role in influencing decisions in various spheres of the economy. Highly complex nature of activities involved in this sector coupled with capital intensive and long term projects pose challenges in accounting and reporting as well. These assume additional significance with technological developments leading to newer techniques of extracting oil and gas and cross border expansion of businesses.

(a) System of Financial Accounting

The IT System

ONGC has implemented SAP ERP system, which encompasses all the business process of the Company including financial accounting. Transactions in financial module are triggered by the data entry in business modules of the System and are simultaneously captured in controlling module where costs are allocated to various activities and final heads of assets and expenditure. Project system module is also used for accounting of costs of Wells, projects including capital and revenue works etc.

(b) Preparation of Financial Statements through Business Intelligence:

- Business Intelligence (BI) (is a component of SAP Netweaver sub-area information integration . This contains components like BI information management, knowledge management and master data management .SAP BI provides toolkit for businesses to get better control over their data by acquiring, retrieving and analyzing it as per management's requirements .
- The Financial Statements of ONGC are prepared from BI module from 2011-12 onwards based on requirements of Schedule VI of erstwhile Companies Act 1956 .This requirement has undergone change with the notification Companies Act 2013 and the subsequent notification of Ind AS by Ministry of Corporate Affairs in February 2015 which companies are required to follow based on the criteria specified therein.
- To meet the above statutory requirements, a process has been developed under the BI Module of SAP system to draw Financial Statements online to generate following Statements:
 - Balance Sheet
 - Statement of Profit & Loss and Other Comprehensive Income
 - Segment Reporting
- In order to generate financials through BI, following mapping has been done in BI:
 - Forming structure of Company Codes and Profit Centre
 - Mapping of Charts of Accounts in Hierarchy)Ind AS Schedule III(

- Notes to Hierarchy through Queries

ONGC standalone accounts are prepared for Assets, Basins, Institutes, Regional Offices and Panna Mukta & Tapti each of which are presented by a unique company code (MUM, SBS, AMD, DDN, KKL, RJY, PMT etc.) and unincorporated JV/NELP Blocks are represented by Profit Centres under JV company codes (JVB, JVK, JVM, JVD, etc.). The financial statements of Panna Mukta & Tapti can also be directly generated at the company code level (JVP).

(c) Indian Accounting Standards and Significant Accounting policies

In accordance with the notification dated 16th February 2015, issued by the Ministry of Corporate Affairs (MCA), ONGC has adopted Indian Accounting Standards notified under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) with effect from April 1, 2016.

In order to comply with requirement, set out under Indian Accounting Standards (Ind AS), the accounting policies used under Previous GAAP had been modified and certain new policies had been created for preparation of Accounts for the year 2016-17.

(d) Risk Assessment-Internal controls and Compliance thereof

Posting and processing: General Ledger, Sub-Ledger accounts and transitory heads

Accounting entries in General Ledger are generated by the System as per mapping of GL accounts configured in the System on postings in respective business modules. Simultaneous to postings in General Ledger, System based entries are also made in the sub ledger such as vendor accounts. *The issues relating to posting in GLs may be reviewed by the audit teams during Phase-II of accounts audit at unit level.*

Precautions in preparation of Financials in BI

Details of precautions exercised by ONGC during the preparation of financial statements in BI modules are discussed below:

- **Managing authorizations in BI**

It is absolutely necessary to maintain confidentiality of financial results of the Company till these are published. Therefore, the authorizations have been given to relevant users of Central Accounts for their Company code only. However, authorizations as a whole are available with Corporate Accounts users, relevant ICE BI/FI team members, Statutory Auditors of Company. It is important to manage authorizations to users on a regular basis based upon requirements from time to time. Therefore, Corporate Accounts decide for any addition/deletion of authorization to finance executives based upon the requirement.

- **Regular updating of data in BI to ensure that no differences exist with SAP**

The process of updating of data in BI from SAP takes minimum 4 hours, it becomes imperative to ensure that financials taken from BI for publication represents figures of SAP. Units ensure this for their company codes before getting financials signed through Statutory Auditors. The same is also simultaneously ensured at the corporate level before publication.

- **Updating of Company codes/profit centres**

In order to correctly draw financials for Company as a whole from BI, it is necessary to ensure that data for all company codes and profit centres flow to the BI. Therefore, if there is any addition to company codes or profit centres, the same should be immediately updated in BI. For this a separate check list is maintained at the corporate level.

User Access to the System

User's access to the system is role based and segregation of duties.

(e) Physical Verification of Inventory

The annual stock verification programme for various work centres for fixed Assets, Stores & Spares shall be approved by Head of Stock Verification at Head Quarter/In-charge MM at locations. System based verification of fixed assets and items of stores and spares are conducted on perpetual basis based on ABC categorization of items.

Class A- To be verified in the current year

- iv. Capital items on Stock
- v. Stores or spares with Stock Value Rs .4 lakh and above
- vi. Stores or spares with last year consumption Rs .50 lakh and above

Class B- To be verified every two years

- iii. Stores or spares with Stock Value Rs .1 lakh and above but less than Rs .4 lakh
- iv. Class B is further subdivided into B1 and B2 based on the material group

Class C- To be verified every three years

- iii. Stores or spares with Stock Value less than Rs .1 lakh
- iv. Class C is further subdivided into C1, C2 and C2 based on the material group

The discrepancy reports will be marked to In-charge MM, concerned key Executive and Finance .If the discrepancies are not addressed in a period of 30 days, the same will be brought to notice of concerted key Executives and Chief MM .Upon resolution of discrepancy, the same would be closed in the ice system and information sent to stock verification team and finance team .

The proposal for write-off of discrepant or untraceable fixed assets/discrepant stores & spares/losses will be initiated by indenter/user/stock holder as applicable and submitted to the Competent Authority as per BDP through a committee comprising of members from MM, F&A and concerned Indenting/user section at E5 level .The write off action should be completed within a period of three months from the date of notice.

Confirmation of Balances

For obtaining confirmation of balance of debtors/creditors at the reporting date, Corporate Account Section issued necessary instruction to all the accounting units for necessary action. Corporate Accounts Section do not take any confirmation of balances. Documents in support of these will be available at unit level.

(f) Internal control system

Section 143(3)(1) of the Companies Act 2013 requires the auditors of companies to report as to whether the company has adequate internal financial controls. According to the "Guidance Note on Audit of Internal Financial Controls over Financial Reporting" of ICAI dated 14 September 2015, the auditors needs to obtain reasonable assurance to state whether an adequate internal financial control system was maintained and whether such internal financial control system operated effectively in the company in all material aspects with respects to financial reporting. Statutory Auditors enquired (August 2015) about the following controls as per ICAI guidance note and raised concern about the non-availability of Risk Control Matrices as prescribed under ICAI guidance note:

- Entry Level Controls
- General Computer Controls
- Documentation of financial reporting process
- Test plans to ensure the operating effectiveness of the controls
- Identification of deficiencies etc.

(g) Correctness of data and its processing:

Corporate Accounts issues instructions from time to time to all accounting units for preparation/finalization of accounts. On the basis of basic records available at unit/corporate level books of accounts i.e. Balance Sheet and Statement of Profit and Loss on periodic basis by each accounting unit using Business intelligence module of SAP. The information in respect of each accounting unit is reviewed by Corporate Accounts and standalone financial statements are prepared from the Balance Sheet and Statement of Profit and Loss along with schedules of all the units.

(h) Significant Accounting Policies of ONGC

1. Statement of Compliance
2. Basis of preparation
3. Investment in subsidiaries, associates and joint ventures
4. Interest in joint operations
5. Non-current asset held for sale
6. Government Grants
7. Property, plant and Equipment)other than Oil and Gas Assets(
8. Intangible Assets
9. Impairment of tangible and intangible assets
10. Exploration & Evaluation, Development and Production Costs
11. Oil & gas Assets
12. Side Tracking
13. Decommissioning costs
14. Inventories
15. Revenue recognition
16. Leases
17. Foreign Exchange Transactions
18. Employee Benefits
19. Voluntary Retirement Scheme
20. General Administrative Expenses
21. Insurance Claims
22. Research and Development Expenditure
23. Income Taxes
24. Borrowing Costs
25. Rig Days Costs
26. Provisions, Contingent Liabilities and Contingent Assets
27. Financial instruments
28. Equity instruments
29. Financial assets
30. Financial liabilities
31. Earnings per share
32. Cash Flow Statement
33. Segment reporting

(III) MANPOWER ANALYSIS:

MANPOWER ANALYSIS AS ON 31.03.2019							
PLACE	FEMALE			MALE			Grand Total
	OFFICERS	STAFF	TOTAL	OFFICERS	STAFF	TOTAL	
AGARTALA	28	18	46	600	387	987	1033
AHMEDABAD	112	47	159	1484	1015	2499	2658
ANKLESHWAR	25	31	56	1544	1053	2597	2653
BARODA	93	51	144	702	376	1078	1222
BOKARO	12	0	12	161	13	174	186
CAMBAY	3	3	6	278	195	473	479
CHENNAI	75	34	109	383	114	497	606
DEHRADUN	188	106	294	1134	449	1583	1877
NEW DELHI	186	25	211	1209	102	1311	1522
GOA	4	6	10	40	9	49	59
HAZIRA	33	15	48	468	336	804	852
JODHPUR	4	0	4	125	54	179	183
JORHAT	59	25	84	602	404	1006	1090
KAKINADA	27	2	29	465	69	534	563
KARAIKAL	19	14	33	766	646	1412	1445
KOLKATA	24	6	30	200	114	314	344
MEHSANA	37	20	57	1368	846	2214	2271
MUMBAI	397	122	519	3748	1571	5319	5838
NAZIRA	90	112	202	1700	1907	3607	3809
RAJAHMUNDRY	48	36	84	915	738	1653	1737
SIBSAGAR	1	2	3	68	99	167	170
SILCHAR	2	10	12	199	236	435	447
URAN	30	15	45	357	271	628	673
Grand Total	1497	700	2197	18516	11004	29520	31717

MOU TARGET AND ACHIEVEMENTS:

During the three years 2015-16 to 2017-18 the Company has self-evaluated its Performance as Very Good towards achievement of the MOU Target.

(IV) COMPUTERISATION:

The Corporation has installed advanced software for its technical applications like processing of exploration data, simulation of reservoir models, analysis of drilling and production data, etc. Most of the accounting and material management functions have also been computerised. The various user groups generate a number of reports in the computers for use.

A A number of new projects - project PROMISE (Professional Review of Major Infocom Systems & Equipment), project ICE (Information Consolidation for Efficiency), project IMPETUS (Implementing Maintenance & Procurement Efforts Through Upgraded Systems) are launched. All these projects are aimed at integrating infotech resources, integrate company-wide ERP management system and facilitate better maintenance and repair of equipment and facilities. ONGC has already implemented upgraded financial system for ONGC (USFO) using SAP-R3 Enterprises Resources Planning Software for maintaining its accounting system. ONGC is equipped with other Management information systems for managing both its administration and technical requirement. The PROJECT ICE (*Information Consolidation for Efficiency*) was conceived as total ERP (Enterprise Resource Planning) solution to develop integrated, flexible and standardized architecture for Information Network and integrate information related to almost all activity area under one roof. SAP was selected as the ERP package for this project. The objectives of Project ICE are:

- i. Optimisation and standardization of business processes.
- ii. Moving up the value chain
- iii. Cost reduction
- iv. Strengthening efficiencies
- v. Lowering of Inventories
- vi. Increasing Customer Service and satisfaction
- vii. Increasing Customer Service and satisfaction

B Details of IT systems

Details of IT systems deployed by Corporate Infocom Services, in the last three years			
SI No	Project name	Project Description	Completion date
1	Security Tools Project	Supply, installation, implementation & commissioning of IT security Tools	25.07.2017
2	Internet gateway Upgradation Project	Consolidation and upgradation of Internet Gateways.	19.09.2018
3	Project Management Office	To setup a Project Management System in ONGC	30.04.2018
4	DISHA	Enterprise Wide Paperless office solution in ONGC	28.06.2018
5	LAN Upgrade	Replacement/Upgradation of Local Area Network (LAN)	15.09.17
6	WAN Upgrade	Replacement/Upgradation of Wide Area Network (WAN)	22.05.18
7	WiFi system	Supply of WiFi solution	20.04.17
8	NOC Tool Upgradation	Network Operations Centre tools upgradation	27.03.18

C Major Developments done on ICE Platform during last 3-4 years:

- B2B Integration for sales – Many business processes of the organization have been integrated with companies like IOCL, BPCL, and HPCL etc .for sale of Crude & VAP products .
- B2B Integration with SBI –Beneficiary account registration process and vendor/employee payment processes have been fully integrated with State Bank of India using BCM module.
- GTO Process –Initiation of GTO, Loading of Draft data, Triggering of SMS's & Mails, capturing of draft data submission dates by various departments and approvals by relevant authorities have been mapped on ICE platform .
- ISR Services –Indent Requisition Services for Logging, Cementing, Reservoir and Fire Section have been mapped on ICE platform.
- ICE-EPINET Integration – ICE system has been integrated with EPINET for transfer of Drilling and Production and well services data from ICE to EPINET and for extracting Artificial Lift Data from EPINET to ICE
- ICE-EPMS Integration –Integration of ICE system with EPMS system as per requirement of PMO team .Now data well wise crude and gas revenue)production

and price data (from ICE system is flowing to dash boards created in EPMS for better project management of projects in the organization .

- ICE-EACS Integration – EACS integrated with ICE for HR master data transfer and printing of helicopter boarding passes for offshore going personnel.
- Unicode Conversion for ECC and Solution Manager :Unicode migration with SAP carried out and knowledge transfer done.
- GST Implementation and Post implementation changes – Association with Price Water for TAXINJ to TAXINN migration, GST Implementation, issue resolution and knowledge transfer.
- E-Permit implementation - Automation of permission to carry out hot and cold jobs at various locations to replace the paper process with a fully integrated online process for offshore and online locations
- Invoice Monitoring System – This is an application for tracking of vendor invoice status right from entry to payment and the vendors are able to see the status of their invoices online through SRM web page .
- Tender Monitoring System – This process can be used to create tender & monitor the intermediate deadlines .Alerts are generated to avert slippages .
- Vigilance Reporting & Monitoring System – This application captures the various processes of vigilance department like Complaint Registration & Processing, Investigation, Scrutiny, Surprise Checks, Vigilance clearance etc.
- Travel-All activities related to booking, approval, updating ticket details and invoice processing are mapped on ICE platform .Expense claim, approvals & payments are also mapped .The application is fully integrated with Self Booking Tool of Balmer-Lawrie.
- Medical Expenditure Payment Process - For payments of In-patient medical bills to Vendors) Hospitals, Doctors, Pharmacy, Diagnostics & PME .(
- Leave Process - The Leave process for employees has been mapped on ICE platform .Absentee statement can also be generated and processed online.
- Desktop Reports for Key Executives – This application has been developed to show daily summary reports on the Desktops of Key executives .These reports include CMD MIS reports, Various Production & Drilling reports, Operations reports, Mile stone reports, HR Reports etc .
- Colony Accommodation - Master Data of all colonies of ONGC has been mapped on Real Estate module and the process of allotment and vacation of colony has been developed .Employee can give online application which is subsequently processed by HR on ICE platform .
- PMBG Process - A process has been designed to map Performance Benchmarking Contracts on SAP platform .After online reporting against KPIs, performance evaluation report of the SBUs/Other contracts can also be generated on the system .
- Task Monitoring System – This application helps in monitoring various tasks assigned to different sections .

- Performance Scorecard evaluation system – This application has been developed to automatically evaluate work of HR/ER in-charges and is integrated with Task Monitoring System.
- Subsidy Management System and Wind Power Process developed on ICE platform
- Mapping of Succession planning process on ICE platform
- Completed strategic upgrade of ICE ERP system)ECC (from EHP6 SP07 to EHP7 SP11 in all the three landscapes i.e .development system RD1 :09.03.16 to 12.03.2016, quality system RQ1 :14.03.2016 to 16.03.2016 and production system RP1 on 19.03.2016 .All issues encountered during the upgrade process have been resolved .This upgrade has provided additional new features and also provided readiness of ICE system for adoption of GST implementation, mobile solutions, etc.
- New CMD MIS reports configured as per format given by Corporate Planning and made available in WEBICE .Authorization given to all E7 & above executives for reports under ZBW_Director and to E8 & above executives for CMD MIS reports in BW system thru WEBICE.
- Implemented PP-PI/SD business processes, QM, PM processes at C2-C3 Dahej plant .Configured sale process for supply of Ethane, Propane and Butane from C2C3 plant to M/S OPAL .Also implemented automated VAP sales data entry with Weigh Bridge integration .LPG and propane sale delivery data is automatically picked up via weigh bridge integration .Delivery documents, post goods issue, proforma invoice and excise invoice are created in background.
- Implemented process for updating of contact person and Email id of vendors in SRM system by dealing officer.
- Automation of material code extension in warehouse is developed and implemented.
- Implemented installer process for automatic updating of technical setting in vendor's machine for e-tender portal for digital signing of document .This has provided help to dealing officer of tender as well as vendors for the technical setting for smooth access to e-tender portal, this was done manually till now.
- Automatic vendor creation from e-tender's ROS has been developed .This will help dealing officer of tender as well as support team, which was done manually till now .This is landmark development to facilitate the user id and password to vendor on real time basis for e-tender site and also reduce the human effort.
- Automatic program for flag updating of NM)Non-moving (in material is developed .This progress updates the material with NM when there is no consumption for continuous two years. Earlier, it was taking lot of time for manual updating .
- Completed implementation of PAN number)ONGC and customer (appending on sales invoices as per the requirement of Corporate Tax Division.

- Completed addition of two new features in the C-folders for comprehensive report on the documents under various statuses and also to provide the cumulative engineering document approval progress at various levels of the engineering phase for better project monitoring .
- Completed the mapping of process of interim and final probation completion report in HR module thus making it online and paperless process .
- Completed the implementation of new service :e -Charge Taking Certificate)CTC (on promotion,)CTC (on transfer)ROT & JOT (through WEBICE as a paperless process.
- Completed monthly gas balance report of Onshore Assets, the report contains total monthly sales of the asset, internal use, total flaring, lift gas, gas injection and % gas utilization.
- Completed the re-launch of TNI & TNOM for ONGC Academy for paperless training nominations and transparent selection of employees for trainings thereby making the whole training process faster & simpler .Training needs will help ONGC Academy to better plan future trainings .
- Rolled out the process for International Air ticket booking through WEBICE in travel module using SBT on 18.08.2015 by Director)HR(, with this the process of air ticket booking is now completely online both for domestic and international air ticket .
- Completed implementation of the HR Score card in ICE system as per requirement from the office of D)HR (to be effected w.e.f 2016-2017.
- The E-tender portal's home page is made user friendly by incorporating IMPORTANT MESSAGE which has given user check lists for participation in tender .This has reduced calls /mails from the vendor drastically.
- Rolled out a new process to enable employees to file appeal for PAR review online .This has eliminated flow of physical papers from location to HQ .The process will enable HQ PAR team to monitor the process electronically.
- Completed the automation of the assigning of CRC positioned based role for L1, L2 and L3 in respect of MM roles in ICE .Once the CRC position is assigned to user by HR, all the roles pertaining to concerned position are being automatically assigned to the user.
- Implemented “Ready Site ”module for drilling services which provides details of released locations for their readiness for drilling along with a CMD desktop report.
- To improve upon compliance of HSE audits 'observations, a module has been implemented for capturing status of generic audit observations for all installations/plants/rigs in ICE.
- Completed Rig utilization report, well completion report and rig performance report in excel as per the requirement of D)T&FS (office .
- New payment mode has been implemented first time with SBI for FOREX arrangement payments at Forex Cell Mumbai to ensure credit to beneficiary

without any delay .RTGS payment file also gets transferred to SBI on real time basis with digital signature and encryption.

- Mapped a process for paperless approval process in ICE system for change of Principal Officer for existing ONGC Bank Accounts in time and cost effective manner.
- Integrated MM-FI program developed to ensure refund of tender fee, EMD and SD to vendors and for conversion of EMD to SD in case of successful contracts.
- Consolidated report)ZPSWELLCOST (created for monitoring plan vs actual cost along with other technical details and variances for Development /Exploratory / LDST wells in progress /completed during a given period.
- Implemented and rolled out LIMS payment process as per requirement of legal section.
- 28 nos .transactions pertaining to promotion process have been compiled on a dashboard style single screen to enable better user experience.
- Process for user id creation for new vendors has been completely automated . Document attachment facility is developed in e-procurement website for the new registrations of bidders to get the user access in the system .This facilitates the bidder to upload Certificate of Incorporation and PAN card.
-)Balance sheet & Profit /Loss (reports using BW of ICE system .The financial results have been prepared on ICE system in parallel as per GAAP & IND As standards.
- Reconciliation BW Reports for Onshore & Offshore Assets :Reconciliation factor RF is %of total reconciliation w.r.t well head production to sale point .Each asset had a unique logic based on sales point & trunk lines .Also implemented a Total ONGC RF factor Report by clubbing the RFs outputs of all Assets.
- Implemented Forward Auction for the ONGC Trust for deployment of funds for investments.
- Completed configuration of Naphtha export sale process from Hazira Plant to M/s OPAL, Dahej.
- Configured sale process for supply of Ethane, Propane and Butane from C2-C3 . These products are supplied to M/s OPAL as export sale .Ethane billing process is based on energy units.
- ONLINE automatic tender fee refund for multiple payments made by vendor for same e-tender along lines of IRCTC refund has been implemented .It will enable refund of additional tender fee paid without any manual interference.
- Completed integration of HIS and ICE system leading to dynamic exchange of data between the two .
- Facilitated booking of HSD consumption of Rig to ultimate cost object i.e .well WBS, with statistical posting in rig cost centre.
- Consolidated report for purchasing from procurement to payment has been developed which helps users to have a birds 'eye view of all activities in reference

to a purchase requisition like contracts made and service entry sheets along with the corresponding payments.

- Completed roll out of PRA &SD processes for newly created assets HPHT, Cambay and Jorhat in system.
- Completed creation of new trading partner-HPCL for capturing information on related party transactions as a part of consolidation of ONGC accounts subsequent to HPCL acquisition.
- For e-tenders, response time has been optimized from 180 seconds to 5 seconds for guest user which has brought a huge performance on viewing the live tenders in ONGC .This has also freed up some of system resources.
- Rolled out HSE Safety Index program across entire organization 05.03.2018 on ICE platform as an online process & paperless process.
- Completed publication of following validated reports in BW :
 - On shore Rig Mode-wise Utilization Report to give month wise rig utilization information for work over operations.
 - Safety Audit Observations-Compliance Status
 - Safety Audit Observations-High Critically Compliance Status
 - Safety Observations Category wise Audit Report
- Completed process for reporting & monitoring of Theft/Pilferage/FIR status as per requirement of Corporate Security and requisite authorizations are provided to the location In-charges.
- Completed implementation of generation of Transfer Price summary reports of Drilling Services and detailed reports for departmental Drilling rigs on the basis of transfer price postings .
- Completed a report on critical equipment both for onshore & offshore with respect to status of maintenance activities, preparation of PMDPR in PM module.
- Paperless Project :Paperless project DISHA -GO went go live across entire organization on 5.02.2018 with integration of ICE system, completion of scanning solution, helpdesk solution, DR solution, deployment of requisite hardware and networking solution .
- Completed Unicode migration of ICE systems i.e SRM, c-Folder, ECC on 0900hrs of 19.03.2018 as per schedule .This migration was result of culmination of rigorous testing and pre migration activities by all technical and functional teams of ICE spanning last six months .It is a major milestone as it is mandatory and prerequisite for keeping open upgrade path of ICE systems to latest versions of SAP like SoH/S4H any time in future .Also this migration has provided enhanced and efficient application performance leading to better end users satisfaction.
- Implemented new tax law GST in ICE system on 30.06.2017, thus making ONGC's SAP system GST compliant as per GOI guidelines .This major milestone involved extensive configuration of ICE systems & testing of various business

scenarios by MM, SD, FI teams in collaboration with teams from office of CCF, Indirect Tax Cell, Corporate Marketing, Corp MM, and Chief Commercial.

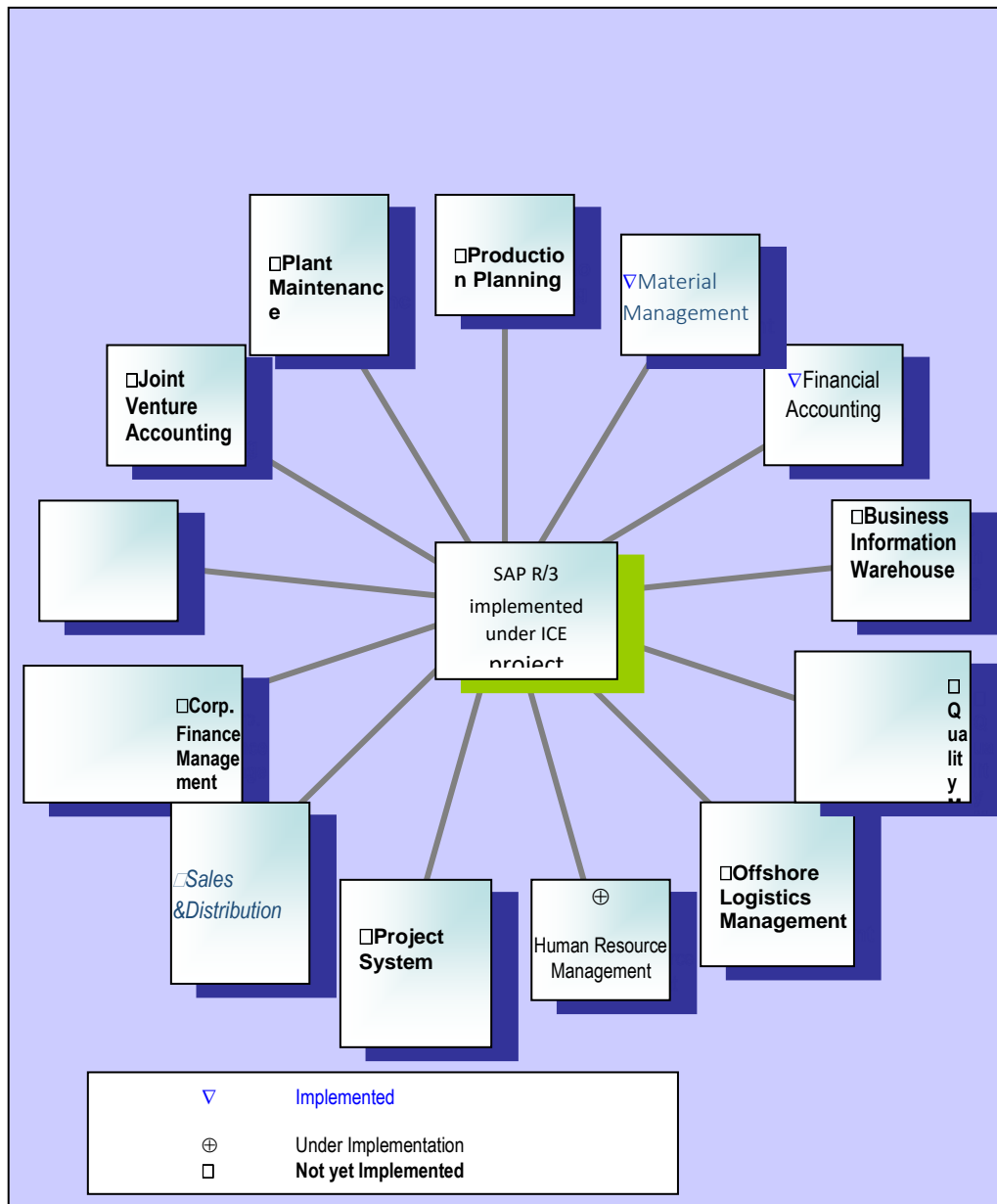
- Completed implementation new process for Scheme Formulation & Budgeting in BPC module of ICE in consultation & guidance of CCF office and go live of same has been one on 21.07.2017 .
- SCADA and ICE integration :This process of partial mapping of observed volume has already been completed for majority of work centres wherein the transaction data of identified tags is flowing into ICE system .
- New measurement points were created in the system in various Assets for sale of gas, inter platform transfers, internal consumption, dispatch and any other points where a product is measured, used or sold as and when the need arose .
- Online Process implemented for mapping of ATR for EC Meetings
- New wells have been created in the system for Mehsana, Ahmedabad, B&S, MH, Neelam & Heera and various other Assets as and when the need arose.
- New fields, platforms and delivery networks created as and when the need arose . 54 delivery networks mapped from 01.03.2016 onwards for better reporting of production data.
- A new Well Wise Allocation report has been developed which is highly optimized and has FPS units)SCF & MCF (of gas production incorporated in it as per requirement of Production Directorate .
- Allocation program modified to rectify inventory calculations at well level upon shifting of wells from one delivery network node to another .This was done with the help of SAP consultants.
- Developed a transaction code to capture locked potential of non-flowing wells has been configured.
- Developed a process for automatic updating of Projects through uploading of standard template excel file on ICE system
- As per requirement of corporate commercial, process for workflow based price maintenance has been rolled out .
- The process has been developed for making GSTIN and HSN code mandatory in Tax invoices.
- Developed the process for raising GST invoices for “Unregistered Customers .” The Customer management program is modified to capture unregistered customers.
- Rolled out the process for “Supply of Service) ”Internal Service (from one GSTIN Area to another within ONGC .GST invoices raised for Services provided by Baroda Workshop and Sibsagar Workshop.
- Completed re-designing of Rig scheduling program on SAP-FIORI platform which now allows rig scheduling at work center level .The same was earlier restricted to company code level.
- Completed a process for monitoring of NELP block as per EXCOM requirement.

- Completed a process for contingent liability
- Mapping of process to claim tax benefit under section 42
- On BPC platform consolidation & cost accounting processes implemented .
- Development for creation of annual gas contracts in single screen with reference to existing gas contracts completed .Rolled out this process for Corporate Marketing .Successfully created Gas Sales order for 2015-16 through newly developed single window-dashboard approach.
- Development for loss/gain statement of LPG at BPCL, Uran completed and rolled out as per requirement from Plant Manager, Uran.
- Printing of Corporate Identity Number)CIN (and other details)except e-mail id (on the face of sale invoices as per guidelines of company secretary is completed .
- Pricing report for Crude, Gas and VAP developed and rolled out.
- Wind power wheeling and sales process –surplus power sales invoices generated from system for all locations.
- Lotus Email ID of users in all the SD billing document print out for Crude, Gas & VAP is completed.
- Swacch Bharat Tax amendment is implemented as proposed by Corporate Accounts .Necessary customization to update expense account is completed.
- Simple process for sale of “laboratory sample testing ”through convenient front end developed and rolled out .
- Billing process validation extended with check on cancellation of proforma invoice .Standard SAP allows cancellation even excise invoice exists . Enhancement done to prevent cancellation in such cases.
- Temperature variation report developed for capturing ATF volumetric loss while transport from Hazira Plant to Mumbai)Juhu & Nhava .(This report lists out transaction wise loss | gain in volume on account of difference in temperature between two places.
- Completed the development of workflow based sales pricing approval in SAP system .This will provide easy and quick approval interface for senior managers.
- Developed interface for automatic posting of crude custody transfer document for Moran and Jorhat to OIL .
- Developed new business process for ‘stock transfer ’of Naphtha from Ankleshwar to Ahmedabad.
- Modified the gas sale pricing procedure to capture premium component on domestic gas sale price .The premium on gas sale was introduced by Govt .in Sept 2016 .
- The development for integration of quality inspection data in the gas sale process has been rolled out .With this development the calorific value of gas can be directly picked in gas delivery from inspection lot.

- Configured validation on billing date of sale invoice to prevent inadvertent cancellation of old date invoice .This configuration is done based on recommendations of Commercial Section.
- Completed crude sale delivery automation for quick and collective data entry .This will minimize manual entry including integration with B2B process .
- Developed and rolled out validation for ensuring premium charges on gas sale from ‘small and isolated fields .’This validation was developed as per the requirement of corporate commercial .
- Completed mobile apps on SAP FIORI platform for Leave, Travel Approvals, PR quantity validation and PR release process up to director level, display of production DPR, display of Drill DPR, time balance report in graphical form, completed wells report, geophysical field party performance)-Plan/Actual (and geophysical field party-wise comparison)Plan/Actual .(

Business areas/modules that were envisaged under project ICE are shown in chart

D Chart on Business Areas/Modules Under Project ICE



E Different modules as envisaged in ICE

1. **Production Planning)PP:(** The primary objective of the PP module is to track planned and actual costs of production/processing Crude Oil, Natural Gas and VAP .It facilitates real time updating of data in other SAP modules, helps in calculating actual & standard costs at any stage in the product cycle, monitors real time production environment with online availability of information related to Materials & Products, as well as customized report generation for faster decision making.
2. **Maintenance)PM:(** The PM module provides a system for the management and maintenance of technical systems including the cost incurred in the planned maintenance as well as breakdown .By being integrated with other modules it gives the cost of each maintenance activity along with its systematic recording and reporting .It will also track various audit activities and their follow up actions in ONGC .New features, like online availability of equipment manuals are being invoked through LDM functionality as a proof of concept .PM module will pick up the development under IMPETUS and go beyond to cover all maintenance activities.
3. **Accounting)FI:(** This module integrates General Ledger, Accounts Payable, Accounts Receivable with all the sub-ledgers synchronized with the G/L in an on-line, real-time manner .The existing Up-gradation of Financial System in ONGC)UFSO) (KUBER (is a stand-alone module with only F1 functions .This new SAP Financial with logistics is integrated with all the adopted R/3 modules starting from supply to the sales .UFSO shall suitably be updated and up linked to this integrated system to seamlessly interact with all other modules for comprehensive transaction tracking and reporting facilities in all the areas of Financial Management System such as Asset Accounting, General Ledger, Trial Balance, Profit and Loss Account, Balance Sheet.
4. **Corporate Finance Management)CFM :(**CFM has three sub modules :Cash Management & Liquidity forecast, Treasury/Forex & Loan management and Credit Risk Analyzer .Liquidity forecast is configured to show the expected cash flows by different time frames .Loans Management sub-module is focused on management of external loans .It offers functions for mapping the complete loan process for loans taken, from entering data on potential contract-to-contract disbursement and the data transfer to Financial Accounting .This Credit Risk Analyzer component enables measurement, analysis and control of default risks . This component includes functionalities of risk classification, attributable amount determination and limit management.
5. **Cost Controlling)CO:(** Controlling)CO (covers the functionalities of Cost Centre Accounting, Profit Centre Accounting and Product Costing for wide range of Management reporting .Controlling features are integrated to the operational

modules such as Sales & Distribution, Material Management, Production Planning, Plant maintenance, Project System and Financial Accounting.

6. **Joint Venture Accounting)JVA:**(This module is to cover the Joint Venture activities, starting from Joint operating agreements, Work Programs, Equity equations, Expenditure, Cash Calls, Recovery, Billing and Accounting)as operator and non-operator.(
7. **Sales & Distribution)SD :**(SD module comprise of entire Sales & Distribution activities starting from sales agreements to delivery and generation & printing of invoice in integrated sales process for all products of ONGC including scrap and services .It is integrated with financial accounting for account receivable management; material management and production planning for real time stock updating and quality management for quality analysis and reporting .Fully compliant with Indian taxation requirement including VAT, it will generate statutory documents e.g .Excise invoice and sales registers and maintain audit trail of transactions through document flow.
8. **Project System)PS :**(This module encompasses all phases of a project from Project Conceptualization, Budgeting, planning of costs and resources and approval of Estimates to Execution, payment and Completion of the project in an integrated scenario .PS module is planned for Engineering Services, Drilling, and Work over, Survey, NELP, Dry docking and consultancy/R&D operations .It enables the treatment of a project as and Enterprise within the Enterprise with links to other functional modules and the project can be treated as an entity, which can be analyzed in its entirety.
9. **Material Management)MM :**(This module integrates all transactions and functions necessary for material requirement planning, procurement, inventory management, invoice verification, and material valuation .In addition to handling special stock types for Crude oil and other product materials transported by pipeline, this will monitor stocks and automatically generate purchase order proposals for the purchasing department .Existing IMMS system will be seamlessly updated into this system .Additional feature of mapping the offshore supply and Helicopter operations for Western Offshore .The system facilitates the whole supply chain management, material tracking and returns.
10. **Quality Management)QM**(QM module covers inspection of procured material, inspection of in-house products, generation of Quality certificate for issuing finished products to the Customers .Among many features, Vendor/Material complaints processing, quality clearance certificate for incoming material and for the products, failure analysis etc .shall be available through this system.

III INTERNAL AUDIT:

Internal audit of ONGC is established as an independent appraisal function department by the Management with primary role to provide an objective evaluation of the operations, Information and control systems that management has put in places.

As per the Manual of Internal Audit Department Manual Vol-I 2013, the Internal Audit Department (IAD) should have staff with appropriate skill. The Department must be mix of financial, technical and Information Systems Auditor. Out of the total staff ,27% are from technical streams. All members of the internal audit service should be free from actual or potential conflicts of interest arising from professional, personal, financial or other interests. The Chief Internal Audit should report to Audit Ethics & Financial Management Committee (functionally) with administrative reporting to the Director Finance. The Chief Internal Audit should meet the Audit Ethics & Financial Management Committee and its Chairman on a regular basis and have the opportunity to communicate without management being present. In extremes, the Chief Internal Audit should be able to request the Chairman of the Audit Ethics & Financial Management Committee to convene an Audit Ethics & Financial Management Committee meeting, if required.

(a) Functions of IAD

The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the Organizations' system of internal control with specific focuses on individual Units (Assets / Basins, Offshore Services, Plants etc). Review of each Unit will focus on:

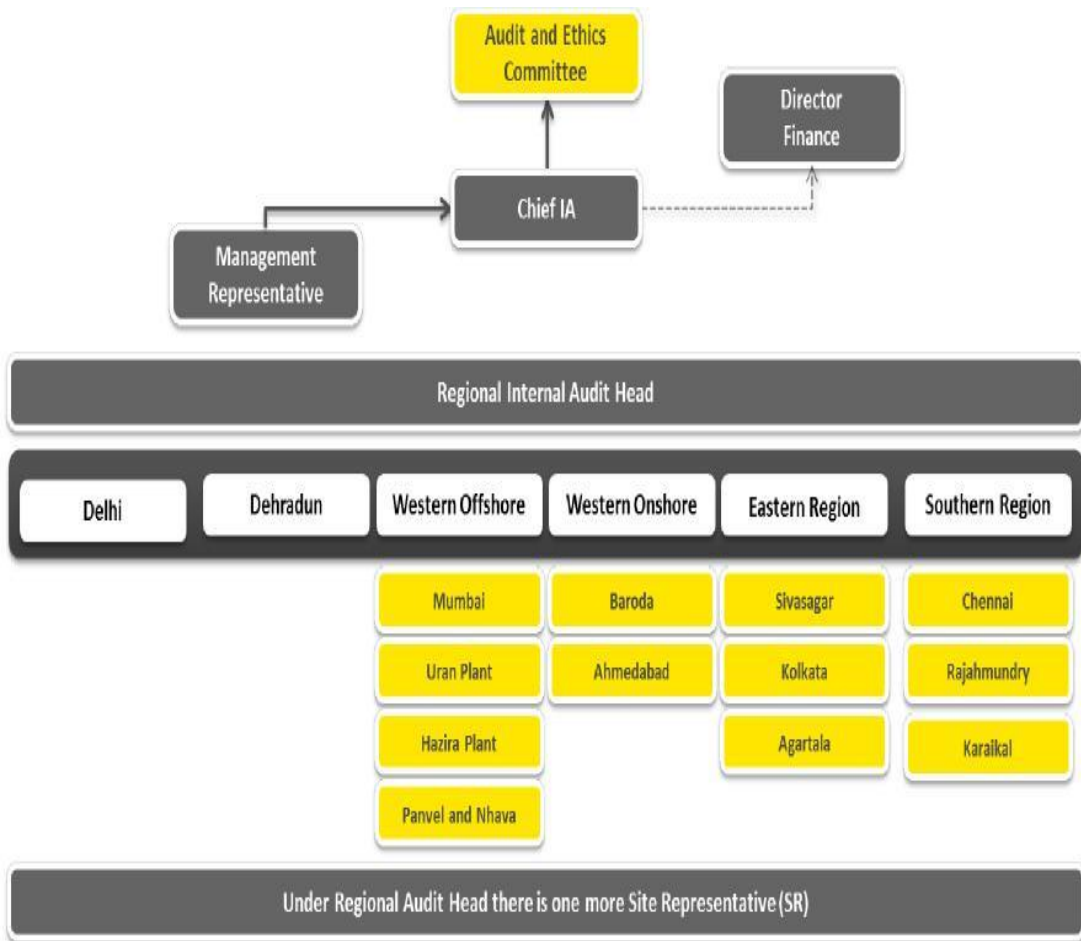
1. Reviewing the reliability and integrity of financial and operating information and the means used to identify measure, classify and report such information.
2. Evaluate the business/process risks and the effectiveness of controls designed by management to mitigate the risks.
3. Reviewing the systems established to ensure compliance with those policies, plans, procedures, laws and regulations which could have a significant impact on operations and reporting and determining compliance.
4. Reviewing the means of safeguarding assets and, as appropriate, verifying the existence of such assets.

5. Reviewing and appraising the economy and efficiency with which resources are employed and utilized
6. Reviewing operations or programmes to ascertain whether results are consistent with established objectives and goals and whether the operations or programmes are being implemented or performed as planned.
7. Verify individual transactions on a sample basis to review operating effectiveness of controls and compliance with laid down policies and procedures of the organization.
8. The audit programs (Volume-II) is considered exhaustive with respect to the required audit coverage, however the auditor shall suitably modify the audit program (if need be), so as to suit the requirement and in the interest of efficiency of audit performance.
9. Offering suitable recommendations for improvement and/or remedial measures upon aforesaid areas.
10. Assisting the organization in identifying and evaluating significant responses to risks and contributing to improvement in risk management and control systems.
11. The scope of the audit of computerized systems will encompass the examination and evaluation of the adequacy and effectiveness of the internal control and the quality of performance of the information systems and shall include:
 - Conduct periodic review and post-installation evaluations of major data processing systems to ensure that adequate controls are in place.
 - Review of the adequacy of controls within the existing application systems and determination of whether those systems meet intended purposes and objectives.
12. Conduct Special Audits at the request of management or the Audit Ethics & Financial Management Committee for audit areas not included in the Audit Universe. These tasks may include providing assistance in case of accounting or controls breakdown ("fire fighting") or irregularity and undertaking control-related projects. Control related projects may involve:
 - Review of Data security and disaster recovery planning
 - Review of supplier compliance with contracts
 - Participate in special audits and due diligence for acquisitions/ divestitures

13. In addition to the audits included in the annual plan, internal audit department may conduct "Theme Audits" as directed by Audit Ethics & Financial Management Committee. Subject for Theme audits may be selected based on the following criteria:
- Areas which have been assessed as High risk areas
 - Areas where significant audit finding were observed during previous audits conducted
 - Any other area considered necessary to be brought into audit focus or considered critical during the year
14. Review contracts and other agreements with outside firms providing goods and services as appropriate. Review the records and documentation of these outside firms when deemed necessary to ascertain compliance with contract terms.
15. Such Special audits, Theme audits will be carried out as per special management request on time to time basis and the audit process and reporting structure followed in such cases shall be based on respective management requirements.
16. JV Audits)NELP /Pre-NELP (will be based on the requirements as per the Production Sharing Contract)PSC (and Joint Venture Operating Agreements)JOA (and the audit process followed in such cases shall be based on JOA.
17. As per CVC guidelines of 2006 (Cir 15/5/06), audit of Contracts/ Supply Orders placed on Nomination basis are to be carried out.
18. As per the Whistle Blower Policy of ONGC, Internal auditors are to perform role as investigators in case of any complaint is received.
19. Internal Audit will also carry out Quarterly Audit of Financial Statements and Annual Audit of CARR Reports.

(b) Organizational structure of IAD:

The Organization structure of Internal Audit is revised periodically to align with the changing Organization structure of ONGC. The Current Organization Structure is given below:



IV SPECIAL ACTS, RULES, REGULATIONS AND DOCUMENTS GOVERNING THE ORGANIZATION

Some of the important laws to be complied with by the Company, are as follows:

1. Petroleum and Natural Gas Rules, 1959;
2. Explosives Act, 1884;
3. Minerals Concessional Rules, 1960;
4. Atomic Energy (Factory) Rules, 1996;
5. The Petroleum Act, 1934 and the Rules made thereunder;
6. The Oil Fields (Regulation and Development) Act, 1948;
7. The Oil Mines Regulations, 2017;
8. The Oil Industry (Development) Act, 1974;
9. The Oil Drilling and Gas Extraction Standards, 1996;
10. The Petroleum & Natural Gas Regulatory Board Act, 2006;
11. The Petroleum & Natural Gas (Safety in Offshore Operations) Rules, 2008;
12. The Mines Act, 1952 and the Rules made thereunder;
13. The Petroleum and Mineral Pipelines (Acquisition of Right of User in Land Act), 1962
14. The Offshore Areas Mineral (Development and Regulation) Act, 2002;
15. The Mines and Minerals (Development and Regulation) Act, 1957; and
16. The Merchant Shipping Act, 1958.

The Management has to abide by the following laws applicable specifically for the Company

1. The Companies Act, 2013)`the Act' (and the Rules made thereunder;
2. The Securities Contracts)Regulation (Act, 1956 and the rules made thereunder;
3. The Depositories Act, 1996 and the Regulations and Bye-Laws framed thereunder;
4. Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;

The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 (SEBI Act):

1. The Securities and Exchange Board of India)Substantial Acquisition of Shares and Takeovers (Regulations, 2011);
2. The Securities and Exchange Board of India)Prohibition of Insider Trading (Regulations, 2015);
3. The Securities and Exchange Board of India)Issue of Capital and Disclosure Requirements (Regulations, 2009 and amendments made thereunder from time to time;
4. The Securities and Exchange Board of India)Registrars to an Issue and Share Transfer Agents (Regulations, 1993);
5. The Securities and Exchange Board of India)Listing Obligations and Disclosure Requirement (Regulations, 2015:

The Company has to comply with the following applicable clauses:

Secretarial Standards with regard to meetings of the Board of Directors (SS-1) and general meetings (SS-2) issued by the Institute of Company Secretaries of India; and Corporate Governance Guidelines issued by the Department of Public Enterprises vide their OM No. 18(8)/2005-GM dated 14th May, 2010.

V OPERATION RESULTS FOR LAST THREE YEARS (TARGET VIS-A VIS ACHIEVEMENT)

Oil Production Performance with reference to MOU Targets

	2015-16		2016-17		2017-18	
	Target	Actual	Target	Actual	Target	Actual
ONGC (Incl NELP)	22.732	22.368	22.420	22.249	22.572	22.305
ONGC's JV Share	3.268	3.560	3.306	3.285	3.355	3.130
Total	26.000	25.927	25.726	25.534	25.927	25.435

GAS PRODUCTION PERFORMANCE WITH REFERENCE TO MOU TARGETS

	2015-16		2016-17		2017-18	
	Target	Actual	Target	Actual	Target	Actual
ONGC (Incl NELP)	23.908	21.177	22.746	22.088	24.033	23.484
ONGC's JV Share	1.192	1.353	1.093	1.182	1.302	1.126
Total	25.100	22.530	23.839	23.270	25.335	24.610

FINANCIAL WORKING RESULTS FOR LAST THREE YEARS:

ONGC STANDALONE ACCOUNTS

Particulars	2015-16	2016-17	2017-18
	₹ in crore		
Revenue from Operations	77741.75	77907.73	85004.10
Other Income	7009.35	7676.34	7883.55
Total Income	84751.10	85584.07	92887.65
Total Expenses	57925.87	60368.56	63995.18
PBT	23598.84	25215.51	28892.47
PAT	16751.93	17899.97	19945.26
EPS (Face value of ₹ 5 each)	12.58	13.95	15.54

ONGC CONSOLIDATED ACCOUNTS

Particulars	2015-16	2016-17	2017-18
	₹ in crore		
Revenue from Operations	135664.21	325666.22	362246.18
Other Income	8144.79	7915.25	7468.1
Total Income	143809.01	334989.39	369714.34

Total Expenses	116679.22	296672.86	333468.09
PBT	20052.25	31040.08	39207.50
PAT	13101.55	29169.11	26067.99
EPS (Face value of ₹ 5 each)	15.97	19.03	17.23

DISINVESTMENT -DETAILS OF DISINVESTMENT FOR LAST THREE YEARS

<i>Disinvestment Details of ONGC shares by PoI for Last 3 year shares</i>			
<i>S. No.</i>	<i>Date of Transaction</i>	<i>No. of Equity Shares</i>	<i>Nature of Transaction/ Consideration</i>
1.	10.04.2015	-84,073	Disinvestment (CPSE ETF - Tranch 1)
3.	25.01.2017	-76,625,087	Disinvestment (CPSE ETF - Tranch 2)
4.	22.03.2017	-34,238,793	Disinvestment (CPSE ETF - Tranch 3)
5.	24.11.2017	-45,618,254	Disinvestment (transfer to Bharat ETF 22 - tranch 1)
6.	22.06.2018	-30,303,519	Disinvestment (transfer to Bharat ETF 22 - tranch2)
Total Holding (PoI) - 30.09.2018	-	8,659,728,737	67.48%
Equity shares capital (No of shares)	(No	12,833,235,180	

REVIEWS AND DPS APPROVED DURING LAST THREE YEARS

Reviews undertaken for the last three years:

Compliance Audit Report: AR Report 21 of 2016 - Crude Oil Production Measurement System in ONGC

Performance Audit undertaken in 2017-18 - AR 2019 - Marine Logistics Operation in ONGC during 2012-2017

DPs Printed during the last three years

Audit Report 2016	
Thematic DP on Non-achievement of objective of acquiring Coal Bed Methane Blocks	Para 1.8 of Report 15 of 2016
Audit Report 2017	
Extra expenditure of Rs 18.52 crore on pipeline replacement project due to shortcomings in the Bid Evaluation Criteria-ONGC	Para 10.6 of Report 9 of 2017
Supply of gas without security resulted in non-recovery of dues-ONGC	Para 10.7 of Report 9 of 2017
Failure to obtain the share of cost of Immediate Support Vessels purchased by ONGC for security of offshore assets from private Exploration and Production (E&P) operators- ONGC	Para 10.9 of Report 9 of 2017
Audit Report - 2018	
PRP-OVL (Payment of performance related pay in contravention of DPE guidelines)	Para of 9.9 of Report of 2018
Delay in hiring of low pressure gas compressor resulting in avoidable flaring of gas	Para 9.10 of Report of 2018
Avoidable payment of rent for unutilised facility OPAL	Para 9.13 of Report of 2018
Wasteful expenditure on unviable project - ONGC	Para 9.12 of Report of 2018
Failure to recover the pending cash calls and loss of interest thereon - ONGC	Para 9.11 of Report of 2018

VI Environment Management:

Information on Environment management:

1. Environment Management section is facilitating to address all environment related issues at Work-entre as well as corporate level.
2. ONGC has following well defined policies showing ONGC's commitment for environment protection in all our operations:
 - a. HSE policy
 - b. Corporate Environment Policy
 - c. Corporate e-Waste Policy
 - d. Corporate Waste Management Policy
3. ONGC Installations are certified with ISO 14001)Environment Management System (certifications.
4. Environmental Clearance is being obtained from MoEFCC before commencement of any project wherever applicable .This requires preparation of Environmental Impact Assessment report which comprises impact assessment and impact prediction in the project area .This is followed by preparation of Environment Management Plan to mitigate the adverse impacts .The EMP includes formulation, implementation and monitoring of environmental protection measures .The EMP takes into account the various applicable Acts, Rules and Regulations/Standards concerned with the environmental management.
5. Post Project Environment monitoring is being carried out regularly and monitoring reports are being submitted to concerned State Pollution Control Boards and Regional Offices of MoEFCC.

CHAPTER - IV
DOWNSTREAM COMPANIES

The Oil Refining and Marketing companies coming under the audit purview of Principal Director of Commercial Audit & *ex-officio* Member, Audit Board - II, Mumbai are as follows:

-

1. Bharat Petroleum Corporation Ltd. (BPCL)
2. Hindustan Petroleum Corporation Ltd. (HPCL)
3. Indian Oil Corporation Ltd (IOCL)

PDCA/MAB-II Office, Mumbai is the Principal Auditor for BPCL and HPCL. The sub Auditors for BPCL Northern Region is MAB-II New Delhi and MAB-I Kolkata for Eastern Region and Numaligarh Refinery Limited. MAB, Hyderabad is sub Auditor for HPCL's Vishakh Refinery.

The office of the PDCA & MAB-II, New Delhi is the Principal Auditor of Indian Oil Corporation Limited. This Office is a sub-auditor and the audit purview of this office is restricted to audit of Marketing Division head office & IOCL/WR including Gujarat State Office located at Ahmedabad under Western Region, Pipelines Division located at Rajkot and Refinery Division located at Vadodara.

I BHARAT PETROLEUM CORPORATION LIMITED (BPCL)

A INTRODUCTION:

Government of India, acquired (24 January 1976) the equity capital of Burma Shell Refineries Ltd. (BSL), an Indian Company and the assets and liabilities of Burma Shell Oil Storage and Distributing Company of India Ltd. (BSML) through the Burma Shell (Acquisition of Undertakings in India) Act, 1976 and formed a new Company Bharat Refineries Limited. The name was changed as Bharat Petroleum Corporation Limited (BPCL) with effect from 1 August 1977 with two major Divisions viz., Refinery Division (former BSL)

and Marketing Division (former BSML). The Company is under the purview of the Ministry of Petroleum and Natural Gas (MoP&NG). The Company has two refineries at Mumbai and Kochi, 75 Retail Installations/Depots. 51 LPG Bottling Plants, 4 Lube Blending Plants, 52 Aviation Locations/Fueling Stations, Head Office and four Regional Offices. The Bharat Petroleum Corporation Limited (BPCL) received Maharatna status on 12.09.2017.

B Vision and Mission

The vision of the Company is the most admired global energy Company leveraging talent and technology, the first choice of the Customers always, exploiting profitable growth opportunities outside energy, learning Organization and model corporate entity with social responsibility. The Mission of the Company is to participate in nation building by meeting its growing energy needs, Strengthen and expand areas of core competencies throughout the country, total quality management in all spheres of business and maintain the status of a leading national Company Availing new opportunities for expansion / diversification arising from the liberalization of the economy to achieve a global presence.

C Subsidiaries/Joint Ventures

The Company has five Indian subsidiaries and six foreign subsidiaries as on March 31, 2018. Further, the Company has 23 Associates and Joint Venture (JV) Companies within the meaning of Section 2 (6) of the Companies Act 2013 ('the Act'). Ujjwala Plus Foundation is a JV with fund contribution of 25% by the Company under Section 8 of the Companies Act, 2013 without Share Capital.

As on 31 March, 2018 the percentage of shareholding of the above Subsidiaries/JV Companies and Associate Companies are tabulated below:

PARTICULARS OF SHARE HOLDING OF SUBSIDIARY AND ASSOCIATE COMPANIES

SL. No	Name and Address of the Company	Holding/Subsidiary Associate	% of share held	Applicable Section	Investment of the BPCL in the share capital of
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					JV (₹ in crore)
1	Bharat Petro Resources Ltd. (BPRL)	Subsidiary	100	2 (87)	3414.40
2	Bharat Petro Resources JPDA Ltd.	Subsidiary of BPRL	*100	2 (87)	
3	BPRL International BV,* Netherlands	Subsidiary	*100	2 (87)	
4	BPRL Ventures BV,* Netherlands	Subsidiary	*100	2 (87)	
5	BPRL Ventures Mozambique BV, Netherlands	Subsidiary	*100	2 (87)	
6	BPRL Ventures Indonesia BV Netherlands	Subsidiary	*100	2 (87)	
7	BPRL International Ventures BV, Netherlands	Subsidiary	*100		
8	BPRL International Singapore Pte. Ltd Singapore	Subsidiary	*100	2 (87)	
9	Petronet CCK Ltd.	Subsidiary	99.99	2 (87)	194.23
10	Numaligarh Refinery Ltd.	Subsidiary	61.65	2 (87)	453.65
11	BPCL-KIAL Fuel Farm Pvt Ltd.	Subsidiary	**74	2 (87)	5.55
Associate/Joint Ventures					
11	Petronet CI Ltd.#	Associate	11	2 (6)	1.58
12	Bharat Oman Refineries Ltd.	Associate	50	2 (6)	1585.68 crores and has given loan of 1254.10 crores
13	Petronet LNG Ltd.	Associate	12.5	2 (6)	98.75
14	Indraprasth Gas Ltd	Associate	22.5	2 (6)	31.5

15	Maharashtra Natural Gas Ltd.	Associate	22.5	2 (6)	22.5
16	Central UP Gas Ltd.	Associate	25	2 (6)	15
17	Sabarmati Gas Ltd.	Associate	49.94	2 (6)	122.40
18	Haridwar Natural, Gas Pvt. Ltd.	Associate	50	2 (6)	7.50
19	Goa Natural Gas Pvt. Ltd	Associate	50	2 (6)	7.50
20	Bharat Star Services Pvt. Ltd.	Associate	50	2 (6)	10
21	Delhi Aviation Fuel Facility Pvt. Ltd	Associate	37	2 (6)	60.68
22	Mumbai Aviation Fuel Farm Facility Pvt. Ltd	Associate	25	2 (6)	38.27
23	Kannur International Airport Ltd.	Associate	21.68	2 (6)	213.80
24	GSPL India Gasnet Ltd	Associate	11	2 (6)	30.47
25	GSPL India Transco Ltd.	Associate	11	2 (6)	22.55
26	Kochi Salem Pipeline Private Ltd.	Associate	50	2 (6)	55
27	Matrix Bharat Pte. Ltd Singapore	Associate	50	2 (6)	8.41
28	FINO Pay Tech Ltd.	Associate	21.1	2 (6)	251
29	Petronet India Ltd.#	Associate	16	2 (6)	
30	Bharat Renewable Energy Ltd.#	Associate	33.33	2 (6)	3.36

* Shares are held by Subsidiary

**BPCL-KIAL Fuel Farm Facility P.Ltd is treated as JV for consolidation of accounts as per IndAS.

Companies in the process of winding up.

Out of the five Indian Subsidiaries and 23 Joint Venture (JV) Companies, the Certification audit of two subsidiaries viz Bharat Petro resources Limited (BPRL) and Bharat Petro Resources JPDA Limited and audit of four JVs viz. Mumbai Aviation Fuel Farm Facility Pvt. Limited, Maharashtra Natural Gas Limited, Ratnagiri Refinery & Petrochemical Limited and Goa Natural Gas Private Limited are under the audit purview of this Office.

D OBJECTIVES

1. To purchase or acquire, manufacture, refine, treat, reduce, distil, blend, purify and pump, store, hold, transport, use, experiment with, market, distribute, exchange, supply, sell, and otherwise dispose of, import, export and trade and generally deal in any and all kinds of petroleum and petroleum products, oil, gas and other volatile substances, asphalt, bitumen, bituminous substances, carbon, carbon black, hydrocarbon and mineral substances and the products or the by-products which may be derived, produced, prepared, developed, compounded made or manufactured therefrom and substances obtained by mixing any of the foregoing with other substances.
2. To carry on all or any of the businesses of consignees and agents for sale, of dealers in and refiners of petroleum and other oils and products and other kind of businesses, wharfingers, merchants, carriers, ship owners and charterers, lightmen, barge owners, factors and brokers in all or any of their branches and to treat and turn to account in any manner whatsoever any petroleum or other oil or any product thereof.
3. To purchase or otherwise acquire and to import, store, export, trade and deal in any kind of oil whether mineral, animal or vegetable;
4. To carry on any other business which may seem to the Company capable of being conveniently carried on in connection with any of the objects specified above or calculated directly or indirectly to enhance the value of, or render profitable, any of the Company's property or rights.

E ACTIVITIES

The Company produces and supplies primary fuels High Speed Diesel, Motor Spirit, Liquefied Petroleum Gas Further, the Company is engaged in the following activity:

1. Production of liquid and gaseous fuels, illuminating oils, lubricating oils or greases or other products from crude petroleum or bituminous minerals
2. Bottling of LPG/Compressed Natural Gas
3. Manufacture of other petroleum products including petroleum bitumen and other residues of petroleum oils
4. Distribution and sale of gaseous fuels
5. Electric power using solar energy and other non-conventional sources

6. Transport via pipeline
7. Wholesale of solid, liquid and gaseous fuels and related products
8. Retail sale of automotive fuel in specialized stores/petrol filling stations
9. Retail sale of household fuel oil, bottled gas, coal and fuel wood.

Marketing Network of Western Region of BPCL for the last three years:

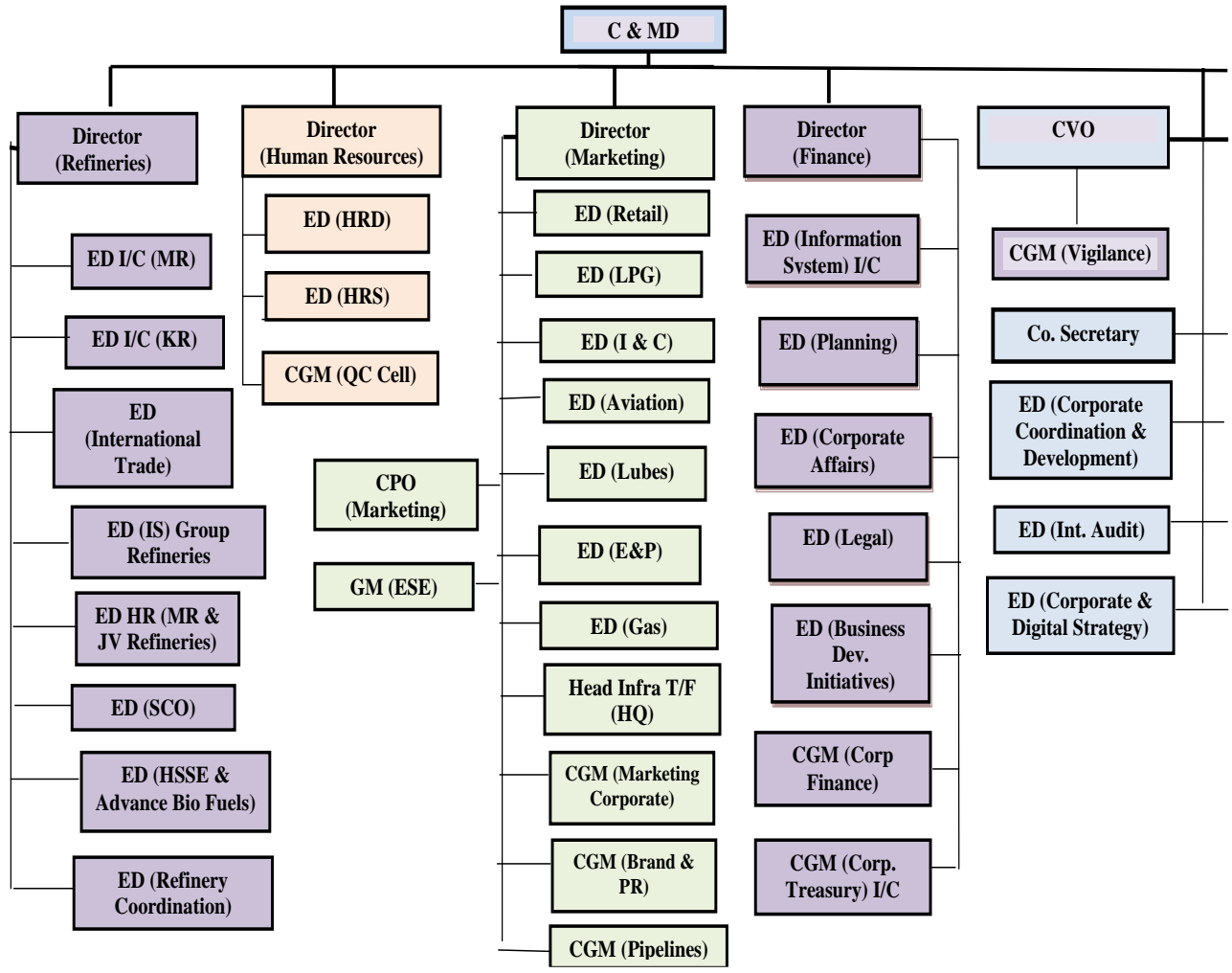
Marketing Network	2015-16	2016-17	2017-18
Retail Installations	5	5	5
Retail Depos	12	12	11
Retail total tankages (Million KL)	1.199	1.199	1.16
Retail Outlets	3692	3855	3983
Retail - Despatch Units	4	4	4
Aviation Service Stations	8	8	12
Aviation Total Tankage in KL	5671	5731	5856
LPG Bottling Plants	14	14	14
LPG total tankages (TMT)	46	46	45.66
LPG Distributors	1220	1233	1199
Lube plants	2	2	2

F ORGANIZATIONAL SET UP:

The Company is headed by the Chairman and Managing Director. He is supported by four full time functional Directors and Executive Directors. Four Directors are for Finance, Marketing, Refineries and Human Resources. On the board of the Company, GOI has appointed two govt. nominee directors and four Independent directors. The organizational set up is divided into seven Strategic Business Units and other supporting units to these SBUs. Seven strategic units includes Refineries, LPG, Lubes, Gas, Aviation, Industrial & Commercial and Retail. All these SBUs (except refineries) headed by respective EDs are reporting to Director (Marketing).

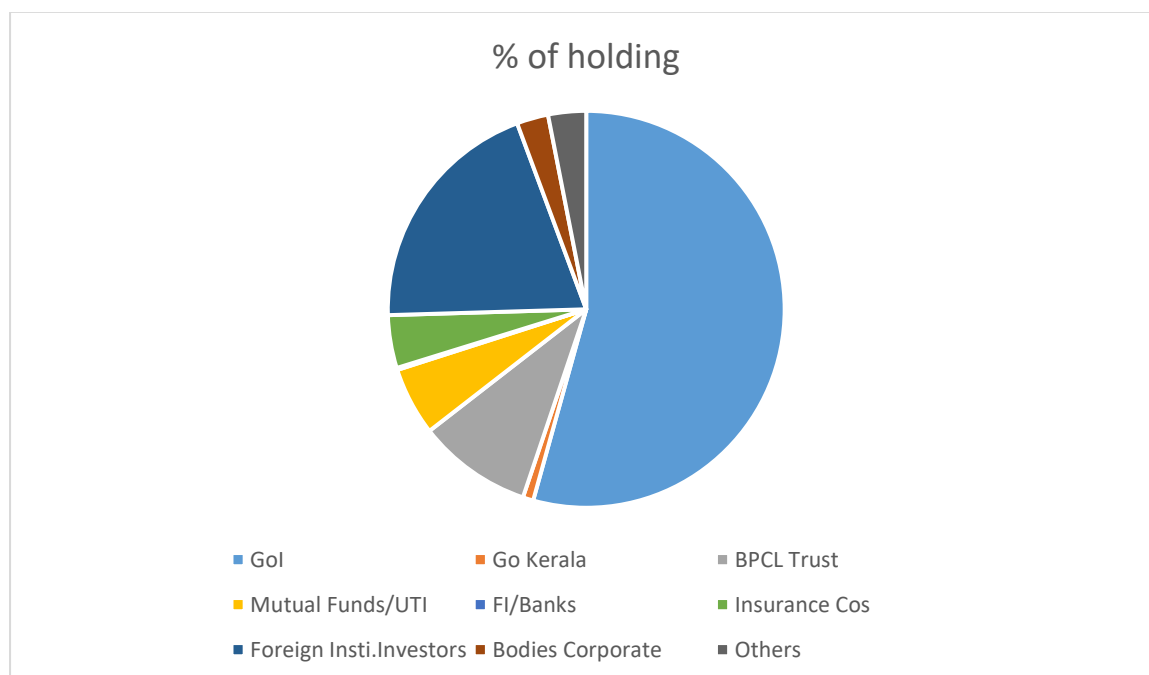
Organogram

BPCL ORGANOGRAM



G CAPITAL STRUCTURE:

The shareholding of GOI as on 31st March 2018 is ₹ 1178.12 Crore which is 54.31% of the total paid up capital of Rs. 2169.25 Crore. The percentage of shareholding is as per the chart below:



H BUDGET AND PLANNING:

The section is headed by Executive Director Planning. The Section handles Entering MOU with MoPNG, Preparation and submission of Capital review for the Projects and interaction with the Government and Ministry.

II ACCOUNTING SYSTEM:

BPCL uses SAP ERP for accounting. The state-of art ERP solutions (SAP) and Business Information Waterhouse in the Corporation has inbuilt Controls including the authorization controls. The SAP systems provide an Audit trail of the transactions. The Company follows mercantile system of accounting in line with the Accounting Standards of ICAI and Generally Accepted Accounting Principles (GAAP). The accounts are maintained

in SAP and are finalized centrally at Corporate Office level. However, structured balances are available unit wise and can be extracted online. Among all the modules implemented in the Company, Finance module has been given over riding powers for compilation of accounts. This module is closed at the last stage of finalization.

III MANPOWER ANALYSIS

The Company employed 12019 regular employees as on 31.03.2018. The retirement age in the company is 60 years. It is following Industrial Dearness Allowance 2007 pattern of remuneration. Details of employment are as below:

- 1) Executives: 5981,
- 2) Non-Executives: 6038

Skilled	4499
Un-Skilled	1539
Total	6038

IV MOU TARGETS AND ACHIEVEMENTS:

The performance of the BPCL for the period 2015-16 to 2017-18 was evaluated as qualified for “Excellent” by the Company based on self-evaluation.

V COMPUTERIZATION (IT SYSTEM DURING LAST THREE YEARS)

Bharat Petroleum Corporation Ltd. (BPCL) have implemented SAP R/3 at all locations spread across the country. The Company has streamlined its business processes and increased its efficiency by adapting to the technology trends and implementing powerful solutions., BPCL’s own competence center have introduced new functionality from the SAP for Oil & Gas (SAP for O&G) solution portfolio. SAP for O&G solutions provide industry-specific support - from the extraction of raw materials to refining to selling finished goods. SAP for O&G helps BPCL manage the entire downstream hydrocarbon value chain from the refining of crude oil through to the transportation, distribution, and sales of petroleum products. The Company has SAP

NetWeaver Business Warehouse (SAP NetWeaver BW) component, which gives employees throughout the entire enterprise access to critical facts and figures.

IV INTERNAL AUDIT

The Corporation has a robust internal control system (including Internal Financial Control over Financial Reporting) that facilitates efficiency, reliability and Completeness of accounting records and timely Preparation of reliable financial and management Information. The internal control system ensures Compliance with all applicable laws and regulations, facilitates in optimum utilization of resources and protects the Corporation's assets and investor's interests. The Corporation has a clearly defined organizational structure, well documented decision rights and detailed manuals and operating procedures for its business units and service entities to ensure orderly and efficient conduct of its business. The internal control systems (including Internal Financial Controls over Financial Reporting) are reviewed on an ongoing basis and necessary changes are carried out to align with the changing business/statutory requirements.

The Corporation's independent Audit function, consisting of professionally qualified persons from accounting, engineering and IT domains, review the business processes and controls to access the adequacy of the internal control system through risk focused audits. The Internal Audit Department plans the annual audit plan to cover each and every aspect of the business. The audit reports published by the Internal Audit Department are shared with the Statutory/Government Auditors, who review the efficacy of internal financial controls. Key business process changes have been reviewed by the internal team before implementation.

The Audit Committee of the Board regularly reviews significant findings of the Internal Audit Department covering operational, financial and other areas and providing guidance on internal controls.

VII ACTS RULES AND OTHER DOCUMENTS APPLICABLE FOR THE CPSE

Special Acts, Rules and Documents, which govern the operations of the Company

- * Memorandum and Articles of Association of Company
- * Formation Agreement
- * Technical Service/Assistance Agreement
- * Crude Oil Sales Agreement
- * Product purchase/Sale Agreements with Other Marketing Companies/ Refineries

- * Guidelines issued by Ministry of Petroleum & Natural Gas (MOP&NG)/ Petroleum Planning and Analysis Cell (PPAC) from time to time regarding subsidy on LPG domestic and Superior Kerosene Oil Public Distribution System (SKO PDS).
- * The Companies Act, 2013
- * Memorandum of Understandings entered into by the Company with other Oil Companies, refineries and suppliers of crude.
- * Delegation of Powers.
- * Accounts Manual and the Accounting Policies adopted by the Companies.
- * Notifications issued from time to time by the Government of India on the pricing/marketing of petroleum products.
- * Compendium issued by Institute of Chartered Accountants of India on Accounting Standard.
- * Excise/GST and Customs laws and provisions of Income Tax, Service Tax Sales Tax laws, etc.
- * Guidelines on Corporate Governance for Central Public Sector Enterprises,2010;

LPG POLICIES & GUIDELINES ISSUED BY MO&PNG:

The following Acts and Rules made thereunder pertaining to oil and gas business as applicable

1. Oil fields (Regulation and Development) Act, 1948
2. The Petroleum Act, 1934
3. Mines and Minerals (Regulation and Development) Act, 1957
4. Petroleum and Minerals Pipelines (Acquisition of Right of User Inland) Act, 1962;
5. Oil Mines Regulations 1984;
6. Petroleum Rules 2002;
7. The Oil Industry (Development) Act, 1974
8. The Energy Conservation Act. 2001
9. Petroleum & Natural Gas Regulatory Board Act 2006
10. Explosive Act,1884; and
11. Gas Cylinder Rules,1981(as amended 2004)

Notifications of the GoI :

1. Use of Aadhaar under section 7 of the Aadhaar Act 2016 for Kerosene Subsidy - 27/04/2017.
2. Pradhan Mantri Ujjwala Yojana - Modalities for Implementation -28/06/2016.
3. Pradhan Mantri UjjwalaYojana
4. - Scheme Guidelines- 31/03/2016
5. Unified Guidelines for LPG Distributorships- 23/06/2016
6. Use of Aadhaar under Section 7 of Aadhaar Act 2016 for PMUY- 06/03/2016
7. Guidelines for selection of Regular LPG Distributorship -25/06/2010
8. Rajiv Gandhi LPG Vitaran Yojana(RGGLV)- 06/08/2009

VIII PHYSICAL PERFORMANCE:

Particulars	2017-18	2016-17	2015-16
Crude Throughput (MMT)	28.54	25.39	24.12
Market Sales (MMT) Including export	43.20	40.17	38.42

IX FINANCIAL WORKING RESULTS:

The Financial working of the Company for the last three years are as under:

Year	Gross Revenue from Operations	Profit after Tax
	(Rs in crores)	
2015-16	217894.77	7056.36
2016-17	242047.82	8039.30
2017-18	277162.23	7919.34

X AUDITABLE UNITS:

(a) SBU Retail

Including HQrs (involving various divisions such as HQ Finance, HQ sales HQ logistics, and WR HQ at Maker Tower, WR Finance, WR sales, WR Logistics, WR Engineering etc. This will also cover audit of randomly selected units from installations, Depots & Territories.

Installations	Depots	Territories
Sewree	Borkhedi	Bhopal
Manmad	Manglia	Indore
Manglia	Gaigaon	Nagpur
MRT	Miraj	Pune
	Rairu	Ahmednagar
	Bhitoni	Solapur
	Bakania	Jabalpur
	Pakni	Raipur
	Loni DU	Gwalior
	ZITOL DU	Manmad
		Mumbai
		Thane
		Goa

SBU-I&C : Hqrs at Mumbai Corporate Office , Finance at Hq including visit of one territory
i.e Mumbai, Pune, Bhopal and Raipur

SBU -Lubricants : **Wadi Lubes Plants and Mumbai Territories at Sewree**
Territories under WR

Raipur	Pune Direct
Nagpur	Pune R
Mumbai R	Aurangabad
Mumbai D	Jabalpur
Bhopal	

(b) SBU LPG

HQ at CO (Finance, sales Logistics Operations etc) and WR at Sewree (Finance ,Sales, Operations ,Logistics & equipment's) Including visit of Bottling Plants selected randomly out of 13 under the region .

Territories	LPG Plant
Mumbai Refinery -Mahul bottling plant	Uran
Uran	Solapur
Solapur	Jalgaon
Jalgaon	Nasik
Nasik	Nagpur
Nagpur	Pune
Wai	Goa
Pune	Bhitoni
Goa	Pitampur
Bhitoni	Bakania
Pitampur	Hariyala
Raipur	Satara
Bakania	Rajkot
	Surat

(c) SBU AVIATION

Aviation WR office at CO Finance at Mumbai (Head Office Noida)

Aviation Fueling Stations (AFS)

Bhopal AFS	Indore AFS
Goa AFS	Pune AFS
Raipur AFS	Nagpur AFS
Gwalior AFS	Ahmedabad
Mumbai	Diu
Nanded	Kandla

AUDITABLE UNITS INDICATING RISK

Sr. no.	Apex/ Audit units	Name of auditable unit	Risk analysis/ Party days
----------------	--------------------------	-------------------------------	----------------------------------

1)	Apex	<p>SBU-RETAIL</p> <p>Including Hqrs. (involving various Divisions such as Hq. Finance, Hq. Sales, Hq. Logistics & WR, Hq. at Maker Towers, WR Finance, WR sales, WR Logistics, WR Engineering etc. This will also cover the audit of randomly selected units from 2 installations, 9 Depots & 9 Territories. (numbering 13,434)</p>	High
2)	Apex	<p>SBU - LPG</p> <p>HQ at CO (Finance, Sales, Logistics, and Operations etc.) and WR at Sewree (Finance, Sales, Operations, Logistics & equipment's) including visit of Bottling Plants selected randomly out of 12 under the Region.</p>	High
3)	Apex	<p>SBU-INDUSTRIAL & COMMERCIAL (I&C)</p> <p>Hqrs. at Mumbai, Finance at Hqrs. including territories out of three selected on random basis.</p>	High
4)	Apex	<p>SBU-AVIATION</p> <p>Aviation WR office at CO, Finance at Mumbai and visit to Aviation Fueling Stations (AFS) out of 5 on selection basis.</p>	High
5)	Apex	<p>SBU - GAS</p>	High
6)	Apex	<p>SBU-LUBRICANTS</p> <p>Hqrs. Western Region ,Supply Chain Management, Wadi Lube Plant and territories selected on random basis out of 9.</p>	High
7)	Apex	<p>SBU-Refinery)Mumbai(</p> <p>Personnel and Administration, Finance, Operations, Maintenance, Fire & Safety, Product Dispatches,</p>	High

		Project Dept., Procurement & Contracts, Technology, Engineering & Construction, Maintenance etc.	
8)	Audit unit	Employees Satisfaction Enhancement, Human Resources Services (HRS) & Human Resources Development (HRD)	Medium
9)	Audit unit	Corporate finance	Medium
10)	Audit unit	International Trade & Supplies Division	Medium
11)	Audit units	Engineering and Projects (including Material Dept.)	Medium
12)	Audit units	New Business Initiatives	Medium
13)	Audit units	ERPCC & IS	Medium
14)	Audit units	Corp. Affairs (Strategy/JVs/Business Dev.)	Medium
15)	Audit units	Corp. Planning	Medium
16)	Audit units	Health, Safety and Environment	Medium
17)	Audit units	Internal Audit	Medium
18)	Audit units	Brand & Public Relation	Medium
19)	Audit units	Company Secretary	Medium

PART-II

HINDUSTAN PETROLEUM CORPORATION LIMITED (HPCL)

A INTRODUCTION:

The Company was incorporated in the name of Standard Vacuum Refining Company of India Limited on July 5, 1952. On 31st March, 1962 the name was changed to ESSO Standard Refining Company of India Limited. Hindustan Petroleum Corporation Limited came into being after the takeover and merger of erstwhile Esso Standard and Lube India Limited. Caltex Oil Refining (India) Ltd. - CORIL was taken over by the Government of India in 1976 and was merged with HPCL in 1977 and in 1978 Kosan Gas Company, the concessionaries of HPCL in the domestic LPG market was taken over and merged with HPCL. HPCL thus came into being after merging four different organizations at different points of time. HPCL has emerged as a Forbes 2000 and Global Fortune 500 company. HPCL owns and operates two refineries at Mumbai and Visakhapatnam and a joint venture refinery at Mangalore, two cross-country pipelines and an extensive network of terminals, depots, bottling plants and aviation servicing facilities. The Corporation is engaged, primarily in the business of refining of crude oil and marketing of petroleum products. HPCL Registered, Corporate Office and Marketing Hqrs is located at Mumbai.

1 VISION

To be a World Class Energy Company known for caring and delighting the customers with high quality products and innovative services across domestic and international markets with aggressive growth and delivering superior financial performance. The Company will be a model of excellence in meeting social commitment, environment, health and safety norms and in employee welfare and relations

2 MISSION

HPCL, along with its joint ventures, will be a fully integrated company in the hydrocarbons sector of exploration and production, refining and marketing; focusing on enhancement of productivity, quality and profitability; caring for customers and employees; caring for environment protection and cultural heritage.

It will also attain scale dimensions by diversifying into other energy related fields and by taking up transnational operations

3 JOINT VENTURES

- HPCL-Mittal Energy Ltd. (HMEL) is a joint venture between HPCL and Mittal Energy Investments Pte Ltd., Singapore with equity holding of 48.99% each.
- Hindustan Colas Private Ltd. (HINCOL) is a joint venture between HPCL and M/s Colas S.A. of France with equity shareholding of 50% each.
- South Asia LPG Company Pvt. Ltd. (SALPG) is a joint venture between HPCL and Total Holding India with equity holding of 50% each.
- Bhagyanagar Gas Ltd. (BGL) is a joint venture of HPCL and GAIL with equal equity holding of 49.97% ¹each.
- Aavantika Gas Ltd. (AGL) is a joint venture of HPCL and GAIL with equal equity holding of 49.98% each.
- Petronet MHB Ltd. (PMHBL) is a joint venture of HPCL and ONGC with equity shareholding of 32.72% each and balance 34.56% of equity is being held by banks. PMHBL owns and operates a multiproduct petroleum pipeline to transport MRPL Refinery's products to various parts of Karnataka.
- Mangalore Refinery and Petrochemicals Ltd. (MRPL) is a joint venture of HPCL and ONGC wherein ONGC holds 71.63% of equity, HPCL holds 16.96% of equity and balance equity is held by public.
- Mumbai Aviation Fuel Farm Facility Pvt. Ltd. (MAFFFL) is a joint venture of Mumbai International Airport Private Limited (MIAL), Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL) and HPCL with equity holding of 25% each.

¹ As of 31st March 2014, paid up equity capital of BGL was ` 5 lacs, in which HPCL and GAIL were holding 24.99% each. Balance 50.02% of shares were held by Kakinada Seaports Ltd (KSPL) on warehousing basis. In addition, each one of HPCL and GAIL had paid ` 22.49 crores as Advance against Equity / Share application money (totaling to ` 44.98 crores) in earlier years. On 20th August 2014, BGL allotted 2,24,87,500 shares on preferential basis to each of HPCL and GAIL towards the money paid earlier. Meanwhile there are certain issues pending adjudication with another shareholder. Accordingly, keeping in view financial prudence, HPCL's share has been considered at 24.99% for consolidation purpose of preparation of Consolidated Financial Statements of HPCL.

- GSPL India Gasnet Ltd. (GIGL) is a joint venture of Gujarat State Petronet Ltd. (GSPL), Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL) and HPCL. HPCL has 11% equity participation in the company and balance being held by GSPL (52%), IOCL (26%) & BPCL (11%).
- GSPL India Transco Ltd. (GITL) is a joint venture of Gujarat State Petronet Ltd. (GSPL), Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL) and HPCL. HPCL has 11% equity participation in the company and balance being held by GSPL (52%), IOCL (26%), & BPCL (11%).
- HPCL Shapoorji Energy Pvt. Ltd. (HSEPL) is a joint venture between HPCL and SP Ports Pvt. Ltd. with equity shareholding of 50% each.
- Godavari Gas Pvt. Ltd. (GGPL) is a joint venture between Andhra Pradesh Gas Distribution Corporation Limited (APGDC) and HPCL with equity stake in the ratio of 74:26.
- Ratnagiri Refinery and Petrochemicals Ltd. (RRPCL) is a joint venture company promoted by IOCL, BPCL and HPCL with equity participation in the ratio of 50:25:25.
- HP Oil Gas Private Limited is a joint venture company promoted by HPCL and Oil India Limited with equity participation of 50:50.

4 SUBSIDIARY COMPANIES

- Prize Petroleum Company Ltd. (PPCL) is a wholly owned subsidiary of HPCL. PPCL is the upstream arm of HPCL and is in the business of Exploration and Production (E&P) of hydrocarbons as well as providing services for management of E&P blocks. During 2017-18, PPCL achieved total production of 33,752 barrels of crude oil from domestic oil field at Hirapur (Gujarat).
- HPCL Biofuels Ltd. (HBL) is a wholly owned subsidiary company of HPCL. HBL was promoted as a backward integration initiative to enable HPCL's foray into manufacturing of Ethanol for blending in Petrol. HBL presently has two integrated Sugar-Ethanol-Cogeneration plants at Sugauli and Lauriya in the state of Bihar.

- HPCL Rajasthan Refinery Ltd. (HRRL) is a joint venture of HPCL and Government of Rajasthan with 74% equity participation by HPCL and balance 26% by Government of Rajasthan. HRRL is setting up a 9 MMTPA capacity greenfield refinery cum petrochemical complex in the state of Rajasthan.
- HPCL Middle East FZCO, a 100% Subsidiary of HPCL was incorporated on 11th February, 2018 as a free zone company under Dubai Airport Free Zone and Establishment Card was issued on 22nd March, 2018 for the company.

5 OBJECTIVES:

The main objects for which the Company is established are:

1. To purchase or otherwise acquire, manufacture, refine, treat, reduce, distil, blend, smelt, store, hold, transport, use, experiment with, market, distribute, exchange, sell and otherwise dispose of, import, export, and trade and generally deal in any and all kinds of petroleum and petroleum products, oil, gas and other volatile substances, lubricating base oils and carbon black feedstock, mineral substances and in general subsoil products and subsurface deposits of every nature
2. To carry on the business of compressing, bottling and distributing liquefied petroleum and other gases for lighting, heating, motive power or for use as industrial fuel or domestic fuel.
3. To act as agents, dealers, transporters, carriers, distributors, representatives of any company, government or statutory body or autonomous body manufacturing liquefied petroleum gas, ammonia and other gases of any nature whatsoever.

6 ACTIVITIES:

HPCL owns & operates 2 major refineries producing a wide variety of petroleum fuels & specialties, one in Mumbai (West Coast) of 7.5 Million Metric Tonnes Per Annum (MMTPA) capacity and the other in Visakhapatnam, (East Coast) with a capacity of 8.3 MMTPA. HPCL also owns and operates the largest Lube Refinery in the country producing Lube Base Oils of international standards, with a capacity of 428 TMT.

HPCL has the second largest share of product pipelines in India with a pipeline network of more than 3370 kms for transportation of petroleum products and a vast marketing network consisting of 14 Zonal offices in major cities and 128 Regional Offices facilitated by a Supply & Distribution infrastructure comprising Terminals, Pipeline networks, Aviation Service

Stations, LPG Bottling Plants, Inland Relay Depots & Retail Outlets, Lube and LPG Distributorships.

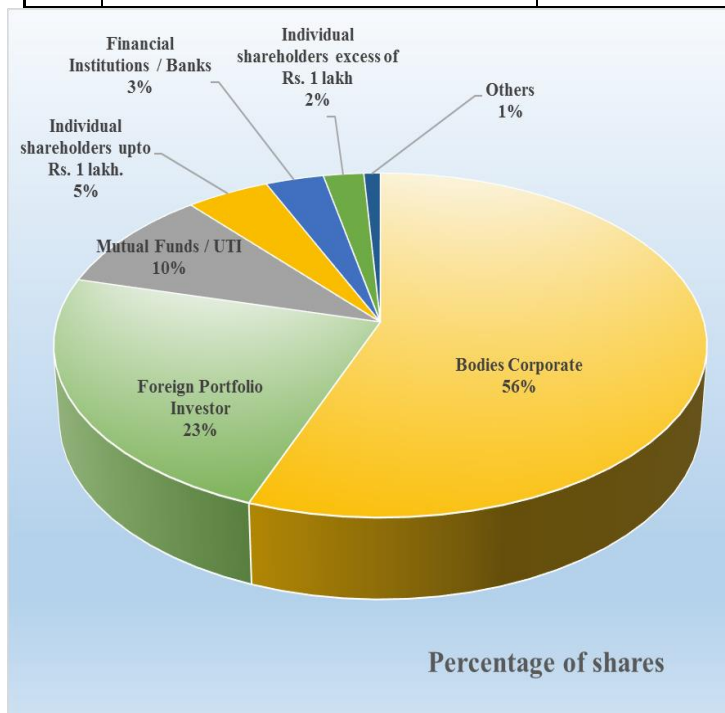
(a) CAPITAL STRUCTURE:

This may please be given in Pie Chart format

Sr No	Category of shareholders	Shareholding at the end of the year			
		Demat	Physical	Total	% of Total Shares
(B)	Public Shareholding				
[1]	Institutions				
(a)	Mutual Funds / UTI	147054760	5175	147059935	9.65
(b)	Venture Capital Funds	0	0	0	0.00
(c)	Alternate Investment Funds	485530	0	485530	0.03
(d)	Foreign Venture Capital Investors	0	0	0	0.00
(e)	Foreign Portfolio Investor	356468985	800	356469785	23.39
(f)	Financial Institutions / Banks	49941440	3950	49945390	3.27
(g)	Insurance Companies	0	0	0	0.00
(h)	Provident Funds/ Pension Funds	0	0	0	0.00
(i)	Any Other (Specify)				
	Foreign Bank	675	0	675	0.00
	Sub Total (B)(1)	553951390	9925	553961315	36.35
[2]	Central Government/ State Government(s)/ President of India				
	Central Government / State Government(s)	0	0	0	0.00
	Sub Total (B)(2)	0	0	0	0.00
[3]	Non-Institutions				

Sr No	Category of shareholders	Shareholding at the end of the year			
		Demat	Physical	Total	% of Total Shares
(a)	Individuals				
(i)	Individual shareholders holding nominal share capital upto Rs. 1 lakh.	66902700	4745815	71648515	4.70
(ii)	Individual shareholders holding nominal share capital in excess of Rs. 1 lakh	34331315	294889	34626204	2.27
(b)	NBFCs registered with RBI	0	0	0	0.00
(c)	Employee Trusts	0	0	0	0.00
(d)	Overseas Depositories(holding DRs) (balancing figure)	0	0	0	0.00
(e)	Any Other (Specify)				
	Trusts	1585749	0	1585749	0.10
	Market Maker	0	0	0	0.00
	Hindu Undivided Family	4036457	0	4036457	0.26
	Non Resident Indians (Non Repat)	1422091	0	1422091	0.09
	Non Resident Indians (Repat)	2863596	902178	3765774	0.24
	Independent Director	6540	0	6540	0.00
	Office Bearers	0	806445	806445	0.05
	Director / Relatives	0	0	0	0.00
	Overseas Bodies Corporates	450	0	450	0.00
	Clearing Member	1895764	0	1895764	0.12
	Bodies Corporate	849917909	25166	849943075	55.77
	IEPF	122306	0	122306	0.00
	Foreign Nationals	1940		1940	0.00
	Sub Total (B)(3)	963086817	6774493	969861310	63.64

Sr No	Category of shareholders	Shareholding at the end of the year			
		Demat	Physical	Total	% of Total Shares
	Total Public Shareholding(B)=(B)(1)+(B)(2)+(B)(3)	1517038207	6784418	1523822625	100.00
	Total (A)+(B)	1517038207	6784418	1523822625	100.00
(C)	Non Promoter - Non Public				
[1]	Custodian/DR Holder	0	0	0	
[2]	Employee Benefit Trust (under SEBI (Share based Employee Benefit) Regulations, 2014)	0	0	0	
	Total (A)+(B)+(C)	1517038207	6784418	1523822625	100.00



(b) MARKETING NETWORK:

S.No	Description of Infrastructure	Marketing Network in Numbers as on 31.03.2018
1	Regional Offices	128
2	Terminals /Installations/TOPs	42
3	Depots including Lube depots	68
4	LPG Bottling Plants	48
5	Aviation Fuel Facilities	41
6	Retail Outlets	15062

(c) LIST OF AUDITABLE UNITS AND RISK ANALYSIS

Sl No	Apex unit/Audit unit	Name of the auditable unit	Risk analysis
1	Apex unit	Corporate Office	High
		i) CMD/HQs	
		ii) Company Secretary	
		iii) Corporate Planning/ Strategy	
		iv) Public Relations / Corp. Communication	
		v) Legal	
		vi) CSR	
		vii) Integrated Margin Management	
		viii) Central Procurement Org.	
2	Apex unit	Finance Dept. at Corporate Office	Medium
		i) Banking and Treasury	
		ii) Pricing	
		iii) Budget and MIS	
		iv) Internal Audit	
		v) Taxation	
3	Apex unit	International Trade & Supplies	Medium
4	Apex unit	Human Resources including Management Development Institute, Pune	Medium
5	Apex unit	Joint Venture Dept.	Medium
6	Apex unit	IT Services including ERP Centre, Sewree	Low
7	Audit unit	R & D Centre, Navi Mumbai	Medium
8	Audit unit	Mumbai Refinery- Fuel/Lube	High
9	Apex unit	Direct Sales HO	Medium
		i) Mazgaon Lube Plant-I	
		ii) Mazgaon Lube Plant-II	
10	Apex unit	Retail Sales HO	Medium
11	Apex unit	LPG HO	Medium

12	Apex unit	Aviation HO	Medium
		Aviation Fuel Station	
		i) Mumbai Aviation Fuel Station	
		ii) Goa Aviation Fuel Station	
13	Apex unit	Pipelines & Projects HO	Medium
14	Apex unit	Operations & Distribution HO	Medium
15	Audit unit	West Zone Office, Mumbai	Medium
		i) Mahul Terminal	
		ii) Sewree Terminal-I	
		iii) Sewree Terminal-II	
		iv) Wadala Terminal	
		v) Vashi Terminal	
		vi) Vashi Black Oil Ter.	
		vii) Loni Terminal	
viii) Vasco Terminal			
16	Audit unit	Gas, Renewable and BD Marketing	Medium
17	Audit unit	Aurangabad Retail Regional Office	Medium
		i) Panewadi Depot	
18	Audit unit	Mumbai Retail Regional Office	High
19	Audit unit	Nagpur Retail Regional Office	High
		i) Khapri Pol Depot.	
		ii) Gaigaon Depot.	
20	Audit unit	Pune Retail Regional Office	High
		i) Hazarwadi Internal Rail Depot.	
		ii) Pakni Internal Rail Depot.	
21	Audit unit	Vasco Retail Regional Office	High
22	Audit unit	Vashi Retail Regional Office	High
23	Audit unit	Solapur Retail Regional Office	High
		i) Pakni/Sholapur Internal Rail Depot.	
24	Audit unit	Mumbai Direct Sales Regional Office	Medium
25	Audit unit	Nagpur Direct Sales Regional Office	Medium
26	Audit unit	Pune Direct Sales Regional Office	High
		i) Pimpri Lube Depot	

27	Audit unit	Aurangabad LPG Regional Office	Medium
		i) Aurangabad LPG Plant	
		ii) Nasik LPG Plant	
28	Audit unit	Pune LPG Regional Office	Medium
		i) Chakan LPG Plant	
		ii)Hazarwadi LPG Plant	
29	Audit unit	Solapur LPG Regional Office(New Unit)	Medium
30	Audit unit	Nagpur LPG Regional Office	Medium
		i) Khapari LPG Plant	
		ii)Chandrapur LPG Plant	
31	Audit unit	Mumbai LPG Regional Office	Medium
		i) Mahul LPG Plant	
32	Audit unit	Navi Mumbai LPG Regional Office	Medium
		i) Usar LPG Plant	
33	Audit unit	Goa LPG Regional Office	Medium
		i) Goa LPG Plant	

7 BUDGET AND PLANNING:

The corporation has a suitable budgetary system in place. The Budget and MIS Department primarily handles activity of preparation of Revenue Budget of the Corporation. In Revenue budget various Physical and Financial parameters are determined which become the standard for measuring the actual performance during the year. Budget and MIS Department also releases various MIS reports to the Top management relating to profitability of the Corporation.

8 ACCOUNTING SYSTEM

HPCL has Enterprise Resource Planning ERP system in the name of "JD Edwards (JDE)" to support all business processes of HPCL. Business information has been effectively managed by JDE system together with a large number of other applications including workflow applications and portals to address specific requirements. Most of these applications/modules have real time integration with ERP (JDE) system for smooth functioning of transactions. In addition, there are a few processes/calculations which are performed using spreadsheets(Excel). The various checks and validations in place to ensure the highest level of accuracy in the recording of accounting transactions. The IT system, applications,

spreadsheets along with the checks and validations ensure that there is no compromise with the integrity of the accounts.

In HPCL, separate trail balances are maintained in JDE at MR, VR, Mktg. & Corporate level. For each quarterly closing, the accounts are thus prepared at these four functional level after which these 4 accounts are consolidated at Corporate Office for generating the Standalone Financial Statements (SFS) of the Organization. The Consolidated Financial Statements or the Group Accounts of HPCL is prepared thereafter by combing the SFS Accounts with the financials of JVCs/Subsidiaries. Further, the corporation has cost accounting system for refineries, Lube blending plants and Marketing Manufacturing locations, in line with the requirements of the Companies Act.

9 MANPOWER ANALYSIS

Manpower analysis as on 31.03.2018:

Particulars	Age				Total
	21-30	31-40	41-50	Above 50	
No. of Employees	2,232	1,686	1,998	4,436	10,352
Management	2,156	1,386	1,013	1,514	6,069
Non- Management	76	300	985	2,922	4,283
Average Age	26	35	47	55	44

10 MOU TARGETS AND ACHIEVEMENTS FOR LAST THREE YEARS:

The performance of the HPCL for the period 2015-16 to 2017-18 was evaluated as qualified for “Excellent” by the Company based on self-evaluation.

11 COMPUTERIZATION

Robust Information Systems have been deployed to support all business processes of HPCL. Enterprise Resource Planning (ERP- JD Edwards) system and a large number of other

applications including workflow applications and portals have been deployed to address the need of effectively handling business information. The ISO certification of the Information Security Management Systems (ISMS) of both data centres at Hyderabad and Mumbai has been renewed for a period of three years. This signifies the reassurance and readiness of HPCL's IT infrastructure to meet the requirements of cyber security.

(a) INFORMATION SYSTEMS:

1. For handling the business information the Company is using Enterprise Resource Planning (ERP) system and a large number of other applications including workflow applications and portals.

2. **Business Intelligence (BI):** BI system provides decision making support for tactical and strategy level decisions. BI system has been upgraded to the latest version including redesign and enhancement of dash boards, analytics for sales & other modules. The upgraded version has better data visualization, easy data selection and Geo map feature for sales analytics. The new BI system is being used extensively by marketing, finance, refineries, integrated margin management and Human resource departments.

3. **E-PROCUREMENT:** E-procurement system developed in-house by HPCL has been certified by STQC (Standardization, Testing and Quality Certification), the quality assurance agency of Department of Electronics and **Information** Technology, Government of India. HPCL is the first company in Oil Industry to have its own procurement application certified by STQC. The use of the system ensures substantial cost savings in procurement in terms of tender hosting charges and procurement man hours. It also ensures Data security with complete audit trail as well as conformance to CVC guidelines, complete integration with ERP system and helped improve the cycle time from Purchase Request (PR) to Purchase Order (PO).

4. **MOBILITY:** The power of mobility is being exploited at HPCL by bringing in more & more applications on mobile platform. 'Sales Sahayak', which is the most popular mobile application, has now matured into "One-point e-tool" for field sales officers/regional managers across SBUs for all online **information** requirement. In addition, HPCL has designed and implemented Geo Map based business analytics to provide industry performance analysis and insights with geographical analytical capability for country, State, Districts, Zonal and Regional level comparisons. A Mobile App for Retail SBU has been developed for enabling

the timely reporting of First Information Reports of Major incidents to all concerned. HPCL has also rolled out an online 'Near Miss reporting system' across the country.

(b) INFORMATION SYSTEMS CENTRE:

HPCL's Information Systems Centre (ISC) at HITEC City, Hyderabad is spread over 1.3 acres with state-of-the-art facilities and hosts 200+ servers that run various IT systems, Network & Operations, Control Centre, Security Operations Centre, Development Centre and Training Centre.

ISC Integrated Building Management System with access controls, very early smoke detection system, waterless fire systems and leak detection system. ISC infrastructure of servers and storage has been kept upgraded and updated to take care of the growing requirements of business. Various requirements from projects like CDMS, Pradhan Mantri Ujjwala Yojana (PMUY), Centralisation of Finance etc. Provisioning of the required server and storage for meeting these new application requirements applications for Disaster Ready mode. The application performance is monitored by using new tools like System Centre Operations Manager (SCOM) and Application Performance Monitoring (APM) During 2016-17, ISO 27001 Certification for Information Security Management System (ISMS) was received for the HPCLC's secondary data centre at Corporate Office. Both the Data Centres are now ISO ISMS certified.

(c) NETWORKS: Internet and location networks at HPCL are continuously monitored for usage and the capacity is being augmented on a regular basis in line with the growth in usage. Security Operations Centre monitors all systems for any security related incident.

Some of the new initiatives implemented during the year to strengthen security are as under:

1. Systems for Privileged Identity Management (PIM) is implemented for managing access to the servers at the Data Centre and controlling the access provided with enhanced privileges to Systems, Database and Application administrators with session logs and recordings.
2. Data Leak Protection (DLP) is implemented for protecting the Corporation's vital digital resources and information.

3. Two Factor Authentication (2FA) access for ERP system is implemented for critical user groups like Regional Managers and third party users. The system is scaled up for other users.
4. Systems for Advanced Persistent Threat (APT) is implemented at the Data Centers to protect the Corporation from newer threats from the Internet.
5. An e-mail archival system is implemented which would archive all mail sent and received from the Corporate E-mail system for purpose of compliance.

12 INTERNAL AUDIT

The Corporation has an independent Internal Audit department headed by an Executive Director (below board level position). The Internal Audit department consists of professionally qualified officers from finance and technical functions, supplementing the internal control processes through an extensive audit program. The internal audits are carried out across all the spheres of business operations of HPCL to review the implementation of business processes and control. Internal audits are carried out as per the annual audit program approved by the Audit Committee of the Board and significant audit observations are periodically reviewed by Audit Committee of the Board. The IA Dept had its Audit Manual published in 2010 which due to various modifications in procedures and systems has become more or less redundant and hence the updating of the same is being contemplated and actions towards it is in progress.

13 ACT RULES OTHER DOCUMENTS APPLICABLE:

HPCL being a downstream oil sector company the following Acts/Rules are applicable to it.

i) Oil Industry Safety Directorate (OISD) Norms

Hydro-carbon processing and handling plants are inherently hazardous. Large and complex plants present substantial risk potential. The industry over the years has learnt lessons from fires and explosions and mishaps and also updates plant safety norms on a regular basis. The norms lay down minimum requirements of layouts within the plant boundary for petroleum refining, oil/gas production and processing plants, LPG filling plants and other petroleum storage installations/ depots including inter distances between facilities and their relative locations. The facilities too are constructed as per the layout and distance norms laid down by OISD.

ii) Explosive Norms

The Petroleum Act, 1934

The activities relating to import, transport, storage, production, refining and blending of petroleum are to be in compliance with the provisions of the Petroleum Act, 1934, which extends to the whole of India. Petroleum means any liquid hydro-carbon or mixture of hydro-carbons and any inflammable mixture (liquid, viscous or solid) containing any liquid hydro-carbon. The Act classifies petroleum products in the various classes such as Class "A" -Flash Point < 23° c, Class "B" - Flash Point >= 23° C < 65° c, Class "C" -Flash Point >= 65° C < 93°c. The Act deals with control over petroleum, testing of petroleum, penalties and procedure.

The Petroleum Rules 1976

The Petroleum Rules, 1976 came into force with effect from August 1, 1976 and deal with the procedures to be followed for import, transport, storage, electric installation licences, refining and blending of petroleum and testing. The Rules also contain general provisions on restriction, delivery and dispatch of petroleum, approval of containers for storage, prevention of escape of petroleum, prohibition on employment of children and intoxicated person, prohibition of smoking, fires, and special precautions against accident and payment of fees, etc.

Gas Cylinders Rules 1981

These Rules deal with provisions relating to filling, possession, import and transport of cylinders, valves, safety devices, etc., for use in LPG.

iii) Pollution Control Norms

The downstream company needs to comply with the pollution control norms while discharging effluents into water bodies, air and earth etc. Emissions to atmosphere become a problem especially while processing sour and heavy crudes and burning high sulphur fuels. The main legislation relating to environment protection includes:

- (i) Water (Prevention and Control of Pollution) Act, 1974
- (ii) Water (Prevention and Control of Pollution) Cess Act, 1977
- (iii) Air (Prevention and Control of Pollution) Act, 1977
- (iv) Environment (Protection) Act, 1986
- (v) Forest (Conservation) Act, 1980
- (vi) Wildlife (Protection) Act, 1972

(vii) Motor Vehicles Act and Rules, 1989.

In addition to the OISD, Explosive, Pollution Control norms discussed, the marketing activities are also governed by the Marketing Discipline Guidelines (MDG) which are formulated by the Ministry of Petroleum and Natural Gas. The basic objective of the Marketing Discipline Guidelines is to protect the ultimate customers' interests, so that they get the full value for their money in terms of correct price, quantity and quality.

14 OPERATION RESULTS FOR THE LAST THREE YEARS (TARGET VIS-À-VIS ACHIEVEMENT)

The Operation Results for the Last Three Years (Target Vis a Vis Achievement) are as given below: -

Year	Budget Target		Achievement	
	Production	Sales	Production	Sales
2015-16	16.70	32.80	17.23	34.19
2016-17	17.01	34.61	17.81	35.23
2017-18	18.00	36.66	18.28	36.87

Notes- Production---Refinery throughput

Sales including Exports

15 FINANCIAL WORKING RESULTS:

The Financial working of the Company for the last three years are as under

Year	Turnover	Sales Income from Operations	Profit after Tax
	(₹ in Crore)		
2015-16	197,437.53	197,743.83	5,776.64
2016-17	213,488.95	213,869.82	9,020.84
2017-18	243,226.66	244,085.12	9,201.93

16 MERGER AND ACQUISITION:

On 19 July 2017, the [Government of India](#) announced the acquisition of [Hindustan Petroleum Corporation](#) by [Oil and Natural Gas Corporation](#).^[7] On 1 November 2017, the Union Cabinet approved ONGC for acquiring majority 51.11% stake in HPCL (Hindustan Petroleum Corporation Limited). On 30 January 2018, [Oil & Natural Gas Corporation](#) acquired the entire 51.11% stake of [Hindustan Petroleum Corporation](#), thus becoming the promoter of the company.^[4] Although ONGC Holds 51.1% in the Company, HPCL denies to identify it as promoter. The reason given for it is that the majority of Board of Directors are from Government of India and not ONGC.

17 AUDITABLE UNITS INDICATING RISK

Sl No	Apex unit/ Audit unit	Name of the auditable unit	Risk analysis
1	Apex unit	Corporate Office	High
		CMD/HQs	
		Company Secretary	
		iii)Corporate Planning/ Strategy	
		iv)Public Relations / Corp. Communication	

		v)Legal	
		vi)CSR	
		vii)Integrated Margin Management	
		viii)Central Procurement Org.	
2	Apex unit	Finance Dept. at Corporate Office	Medium
		i)Banking and Treasury	
		ii)Pricing	
		iii)Budget and MIS	
		iv)Internal Audit	
		v)Taxation	
3	Apex unit	International Trade & Supplies	Medium
4	Apex unit	Human Resources including Management Development Institute, Pune	Medium
5	Apex unit	Joint Venture Dept.	Medium
6	Apex unit	IT Services including ERP Centre, Sewree	Low
7	Audit unit	R & D Centre, Navi Mumbai	Medium
8	Audit unit	Mumbai Refinery- Fuel/Lube	High
9	Apex unit	Direct Sales HO	Medium
		Mazgaon Lube Plant-I	
		Mazgaon Lube Plant-II	
10	Apex unit	Retail Sales HO	Medium
11	Apex unit	LPG HO	Medium
12	Apex unit	Aviation HO	
		Aviation Fuel Station	Medium

		Mumbai Aviation Fuel Station	
		Goa Aviation Fuel Station	
13	Apex unit	Pipelines & Projects HO	Medium
14	Apex unit	Operations & Distribution HO	Medium
15	Audit unit	West Zone Office, Mumbai	Medium
		Mahul Terminal	
		Sewree Terminal-I	
		Sewree Terminal-II	
		Wadala Terminal	
		Vashi Terminal	
		Vashi Black Oil Ter.	
		Loni Terminal	
		Vasco Terminal	
16	Audit unit	Gas, Renewable and BD Marketing	Medium
17	Audit unit	Aurangabad Retail Regional Office	Medium
		Panewadi Depot	
18	Audit unit	Mumbai Retail Regional Office	igh
19	Audit unit	Nagpur Retail Regional Office	High
		Khapri Pol Depot.	
		Gaigaon Depot.	
20	Audit unit	Pune Retail Regional Office	High
		Hazarwadi Internal Rail Depot.	
		Pakni Internal Rail Depot.	
21	Audit unit	Vasco Retail Regional Office	High

22	Audit unit	Vashi Retail Regional Office	High
23	Audit unit	Solapur Retail Regional Office	High
		i)Pakni/Sholapur Internal Rail Depot.	
24	Audit unit	Mumbai Direct Sales Regional Office	Medium
25	Audit unit	Nagpur Direct Sales Regional Office	Medium
26	Audit unit	Pune Direct Sales Regional Office	High
		Pimpri Lube Depot	
27	Audit unit	Aurangabad LPG Regional Office	Medium
		Aurangabad LPG Plant	
		Nasik LPG Plant	
28	Audit unit	Pune LPG Regional Office	Medium
		Chakan LPG Plant	
		Hazarwadi LPG Plant	
29	Audit unit	Solapur LPG Regional Office(New Unit)	Medium
30	Audit unit	Nagpur LPG Regional Office	Medium
		Khapari LPG Plant	
		Chandrapur LPG Plant	
31	Audit unit	Mumbai LPG Regional Office	Medium
		Mahul LPG Plant	
32	Audit unit	Navi Mumbai LPG Regional Office	Medium
		Usar LPG Plant	
33	Audit unit	Goa LPG Regional Office	Medium
		Goa LPG Plant	
34	Apex unit	HPCL Standalone Accounts (Mumbai Refinery, Marketing, Corporate A/cs& standalone consolidation)	High

35	Apex unit	HPCL Consolidated Accounts	
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18 REVIEWS AND DPS APPROVED DURING THE LAST THREE YEARS

S.No	2015-16	2016-17	2017-18
1	Avoidable expenditure on Diesel Hydro Treater Project in Mumbai Refinery of HPCL	Compliance Audit on PAHAL Commercial Department Union Government	Extra payment of ₹.17.93 crore to M/s. Haresh Agencies towards Discount/incentive.

19 ENVIRONMENTAL MANAGEMENT:

Pollution Control Measures initiated & other environment initiatives undertaken by refineries during 2017-18

B Mumbai Refinery:

(i). Hazardous Waste Management

As per the Hazardous waste and other wastes (Management and Trans boundary Movement) Rules 2016 and Consent to Operate, low oily sludge is treated by adopting bio-remediation using consortium of bacteria specialized for oil degradation with a faster rate and thereby converting the low oily sludge into fertile soil. This is an ongoing process at Mumbai refinery for treatment of low oily sludge after mechanical recovery of oil and before disposal. Total quantity of sludge bio-remediated in the year is around 2000 m3.

Mumbai Refinery has disposed approx. 1860 MT of hazardous waste during 2017-18 to "Common Hazardous Wastes Treatment Storage Disposal & Facility" (CHWTSDF), operated

by Mumbai Waste Management Limited (MWML) for secured landfill/incineration. Besides this, 64.6 MT of spent metal catalyst was disposed off to authorized recyclers.

(a) Air Emission Control and Monitoring

All continuous ambient air monitoring stations have been upgraded by M/s Chemtrol Industries. Additional analyzers for monitoring of parameters namely Ozone, Benzene, Ammonia and H₂S have been added along with new SO_x and NO_x analyzer. Data from these stations has been uploaded on Central Pollution Control Board (CPCB) website, New Delhi as well as MPCB website and is available in public domain.

All quality parameters of the ambient air were conforming to the National Ambient Air Quality Standards (NAAQS) during the year.

Apart from online monitoring, manual Monitoring of ambient air as per NAAQS is also being carried out by external MoE&F approved laboratory.

(b) Effluent Water Treatment and Control

Mumbai refinery conforms to ISO 14001:2004 Environment Management Systems and has various Environmental system and procedures in place to control and mitigate significant environmental aspects and their impacts.

State of the art New Integrated Effluent Treatment Plant consisting of primary, secondary and tertiary treatment sections has been in operation consistently since 2010 with a design capacity of 300 m³/hr. The technology conforms to existing MINAS (environment standards) and can also cater to further stringent standards in the future. The purified treated water is being recycled for refinery consumption and has reduced intake of fresh water from the municipal corporation.

Natural Resource conservation by recycling 792097 KL of treated water in the year 2017-18. Cumulative water recycling since the inception of the "Effluent Treatment Plant" is 4324613 KL till Mar 31 2018 thereby saving equivalent amount of Natural Water resource for community. Effluent Quality Monitoring System (EQMS) consisting of following parameters pH, O&G and Flow are installed at the final discharge. The EQMS data connectivity is established till CPCB/MPCB.

(c) Other Initiatives

Rain Water Harvesting - Rainwater Management has been in place since 2010-11. Mumbai Refinery has constructed necessary infrastructure and has harvested about 161000 KL of rainwater during 2017-18.

Oil Spill Response Service:

Mumbai Refinery has deployed Oil Spill Response (OSR) services within refinery premises on round the clock basis as proactive standby measure.

Besides there is a MoU between Mumbai Refinery & MBPT to tackle Tier-I OSR.

Ground Water Quality Monitoring - Ground water aquifers are recharged during rainy season employing roof top rain water harvesting and being monitored for quality (IS 10500: 1991) regularly with a network of bore-wells spread across entire geographical area of the refinery.

Leak Detection and & Repair (LDAR): Leak detection & repair program is in place since 2010 for various equipment like block valves, Heat Exchangers, Compressors etc. to detect any fugitive emissions and corrective action with respect to arresting these leaks are being taken.

Mumbai refinery has installed VOC containment system for "Effluent Treatment plant" operations for Fugitive Emission control.

Safety Management System Evaluation Report received from M/s DuPont; recommendations are under implementation.

C Vaizak Refinery

(i). Hazardous Waste Management

All spent catalysts and discarded chemicals were disposed of to the authorized Central Pollution Control Board (CPCB) recyclers and disposed around 358 MT of various hazardous waste materials. Also processed oily sludge of ~ 5248 m³ during the year.

(a) Air Emission Control and Monitoring

Completion of Compliance to ambient air quality and stack is 100%

Online connectivity to CPCB server was established in addition to the existing connectivity to APPCB server. Stack analyzers installed and commissioned for IBH boiler.

Commissioned TGTUs in DHDS - SRU - Train III. Now all SRUs have TGT facilities and the reduction in SO₂ emissions from 1.5-2.0 Tons/day to 0.2-0.3 Tons/day for each train is achievable with this upgradation.

(b) Effluent Water Treatment and Control

Overall compliance to the MINAS (environment standards) has enhanced. Online connectivity of ETP-IV liquid effluent online analyzers was established to APPCB server.

Sewage Treatment Plants (STP) based on Constructed Wet Land Technology were commissioned for Administration Buildings Block-A (25 KLD) & Block-B (15 KLD).

(c) Other Initiatives

Consent for Operation (CFO) for SPM facility was renewed by APPCB with validity upto 30.06.2022.

Front Level Safety Drive (FLSD) field audits carried out periodically.

Safety Management System Evaluation Report received from M/s DuPont; recommendations are under implementation.

Leak Detection and & Repair (LDAR) - Leak Detection and Repair (LDAR) program is in place for monitoring & controlling the hydrocarbon emission level.

AUDIT EXPERIENCE/SIGNIFICANT INFORMATION RELATING TO THE COMPANY:

As stated above HPCL being a NAVRATNA status CPSU is managed by professionals through Enterprise Resource Planning ERP system in the name of "JD Edwards (JDE)" to support all business processes of HPCL. Business information has been effectively managed by JDE system together with a large number of other applications including workflow applications and portals to address specific requirements. Most of these applications/modules have real time

integration with ERP (JDE) system for smooth functioning of transactions. In addition, there are a few processes/calculations which are performed using spreadsheets(Excel). The various checks and validations in place to ensure the highest level of accuracy in the recording of accounting transactions. The IT system, applications, spreadsheets along with the checks and validations ensure that there is no compromise with the integrity of the accounts. Further, the corporation has cost accounting system for refineries, Lube blending plants and Marketing Manufacturing locations, in line with the requirements of the Companies Act.

As such due to presence of in built checks and balances, conducting audit of HPCL whether compliance audit or accounts audit is a challenging activity and the audit personnel's are required to be updated with latest internal rules, regulations, policies and delegation of powers and also office memorandums, notifications, amendments in statutes accounting standards and such other regulatory framework requirements. The audit team members should update themselves with greater details to understand the functioning of the company, its policies, systems, technical aspects, departmental interconnections and flow of information etc.

20 INDIAN OIL CORPORATION LIMITED (IndianOil)

(a) INTRODUCTION:

Indian Oil Corporation Ltd. (IOCL) was formed on 1 September 1964 by amalgamating the Indian Refineries with the Indian Oil Company Ltd. It is a top rank Indian Company in the prestigious fortune 500 global listing for 2017. Its Corporate office is at New Delhi and Registered office is at Bandra, Mumbai. The Company is headed by Chairman and has six whole time Functional Directors, two Govt Nominee Directors and three independent Directors.

Indian Oil has one of the largest petroleum marketing and distribution networks in Asia, with over 46,500 marketing touch points. Indian Oil's vast marketing infrastructure of petrol/diesel stations, Indane (LPG) distributorships, *SERVO* lubricants & greases outlets and large volume consumer pumps are backed by bulk storage terminals and installations, inland depots, aviation fuel stations, LPG bottling plants and lube blending plants amongst others. The countrywide marketing operations are coordinated by 16 State Offices and over 100 decentralized administrative offices

(b) SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES OF IOCL AS ON 31.03.2018:

Indian Oil Corporation limited has 10 Subsidiaries, 4 Associates and 19 Joint Ventures as on 31.03.2017. The list is given below: The details of Incorporation, Equity Interest and financial performance of the Subsidiaries, Associates and Joint Ventures of IOCL as on 31.03.2017 are also given in the enclosed statements.

Details of subsidiaries and JVs as on 31.03.2017

Sr. No.	Name	Business
Indian Subsidiaries		
1	Chennai Petroleum Corporation Limited Refining of petroleum products	Chennai Petroleum Corporation Limited Refining of petroleum products
2	Indian Catalyst Private Limited	Manufacturing and marketing of FCC catalyst/additive
3	IndianOil CREDA Biofuels Limited	Plantation of jatropha & extraction of oil for bio
Foreign Subsidiaries		
1	IndianOil (Mauritius) Ltd. Mauritius	Terminalling, retailing & aviation refuelling
2	Lanka IOC PLC	Retailing, terminaling & bunkering
3	IOC Middle East FZE, UAE	Lube blending & marketing of lubricants & base oil
4	IOC Sweden AB, Sweden	Investment company for E&P project in Venezuela
5	IOCL (USA) Inc., USA	Participation in shale gas asset project
6	IndOil Global B.V., The Netherlands	Investment company for integrated LNG project in Canada
7	IOCL Singapore Pte Ltd.	Investment company for E&P Assets in Russia.

Joint Ventures:

Sr. no.	Name	Business	Partners
1	Avi Oil India Pvt. Ltd.	Speciality lubricants.	Neden BV Netherlands, & Balmer Lawrie & Co. Ltd
2	Delhi Aviation Fuel Facility Private Limited	Setting up and operation of aviation fuel facility at Delhi Airport	Delhi International Airport Pvt. Ltd. & Bharat Petroleum Corporation Ltd.
3	Green Gas Ltd.	City gas distribution	GAIL (India) Ltd.
4	GSPL India Transco Ltd.	Setting up of natural gas pipelines	Gujarat State Petronet Ltd., Hindustan Petroleum Corporation Ltd. & Bharat Petroleum Corporation Ltd.
5	GSPL India Gasnet Ltd.	do	do
6	IOT Infrastructure & Energy Services Ltd	Terminalling services	Oiltanking GmbH, Germany
7	IndianOil Adani Gas Pvt. Ltd.	City gas distribution	Adani Gas Ltd.
8	IndianOil LNG Pvt. Ltd.	Setting up of 5 MMTPA LNG terminal at Ennore	IDFC Alternatives Ltd., ICICI Bank Ltd.
9	IndianOil Petronas Pvt. Ltd.	Terminalling services and parallel marketing of LPG.	Petronas, Malaysia
10	IndianOil Skytanking Pvt. Ltd.	Aviation fuel facility projects and into plane services	Skytanking GmbH, Germany.
11	Indian Synthetic Rubber Pvt. Limited	Manufacturing of styrene butadiene rubber TSRC, at Panipat	Taiwan & Marubeni, Japan
12	Kochi Salem Pipelines Private Limited	Laying pipeline for transport of LPG from Kochi to Salem	Bharat Petroleum Corporation Ltd.

13	Lubrizol India Pvt. Ltd..	Lube additives	Lubrizol Inc. USA
14	Mumbai Aviation Fuel Farm Facility Pvt. Ltd.	Setting up of common user integrated aviation fuel infrastructure,	Bharat Petroleum Corporation Ltd. Hindustan Petroleum Corporation Ltd. & Mumbai International Airport Ltd.
15	NPCIL - IndianOil Nuclear Energy	For setting up nuclear power plant	Nuclear Power Corporation of India Ltd.
16	Petronet LNG Ltd.	LNG imports/distribution	Bharat Petroleum Corporation Ltd., Oil and Natural Gas Corporation Ltd., GAIL (India) Ltd. & Gaz de France International
17	Suntera Nigeria 205 Limited	Oil exploration activities	Oil India Ltd. & Suntera Resources Ltd., Cyprus
18	Hindustan Urvarak and Rasayan Ltd	Setting up and operating fertilizer plants at Sindri, Gorakhpur and Barauni	Coal India Ltd., NTPC Ltd., Fertilizer Corporation of India Ltd., Hindustan Fertilizer Corporation Ltd.
19	Indian Oil Ruchi Bio fuels LLP	To undertake jatropa plantation in 50,000 hectares in Jhansi and Lalitpur in UP.	Ruchi Soya Industries Limited (RSIL)

(c) OBJECTIVES

- To serve the national interests in oil and related sectors in accordance and consistent with Government policies.
- To ensure maintenance of continuous and smooth supplies of petroleum products by way of crude oil refining, transportation and marketing activities and to provide appropriate assistance to consumers to conserve and use petroleum products efficiently.
- To enhance the country's self-sufficiency in crude oil refining and build expertise in laying of crude oil and petroleum product pipelines.

- To further enhance marketing infrastructure and reseller network for providing assured service to customers throughout the country.
- To create a strong research & development base in refinery processes, product formulations, pipeline transportation and alternative fuels with a view to minimizing/eliminating imports and to have next generation products.
- To optimize utilization of refining capacity and maximize distillate yield and gross refining margin.
- To maximize utilization of the existing facilities for improving efficiency and increasing productivity.
- To minimize fuel consumption and hydrocarbon loss in refineries and stock loss in marketing operations to effect energy conservation.
- To earn a reasonable rate of return on investment.
- To avail of all viable opportunities, both national and global, arising out of the Government of India's policy of liberalization and reforms.
- To achieve higher growth through mergers, acquisitions, integration and diversification by harnessing new business opportunities in oil exploration & production, petrochemicals, natural gas and downstream opportunities overseas.
- To inculcate strong core values among the employees and continuously update skill sets for full exploitation of the new business opportunities.
- To develop operational synergies with subsidiaries and joint ventures and continuously engage across the hydrocarbon value chain for the benefit of society at large.

(d) ACTIVITIES:

Refining and Marketing of petroleum products:

Refining activities:

IOCL owns and operates 11 Refineries with a combined refining capacity of 80.70 Million Metric Tonnes per annum. These includes two refineries of subsidiary Chennai petroleum Corporation Ltd./ (CPCL) at Chennai and Narimanam.

Marketing activities:

Indian Oil has one of the largest petroleum marketing and distribution networks in Asia, with over 46,500 marketing touch points. Indian Oil's vast marketing infrastructure of petrol/diesel stations, Indane (LPG) distributorships, *SERVO* lubricants & greases outlets and large volume consumer pumps are backed by bulk

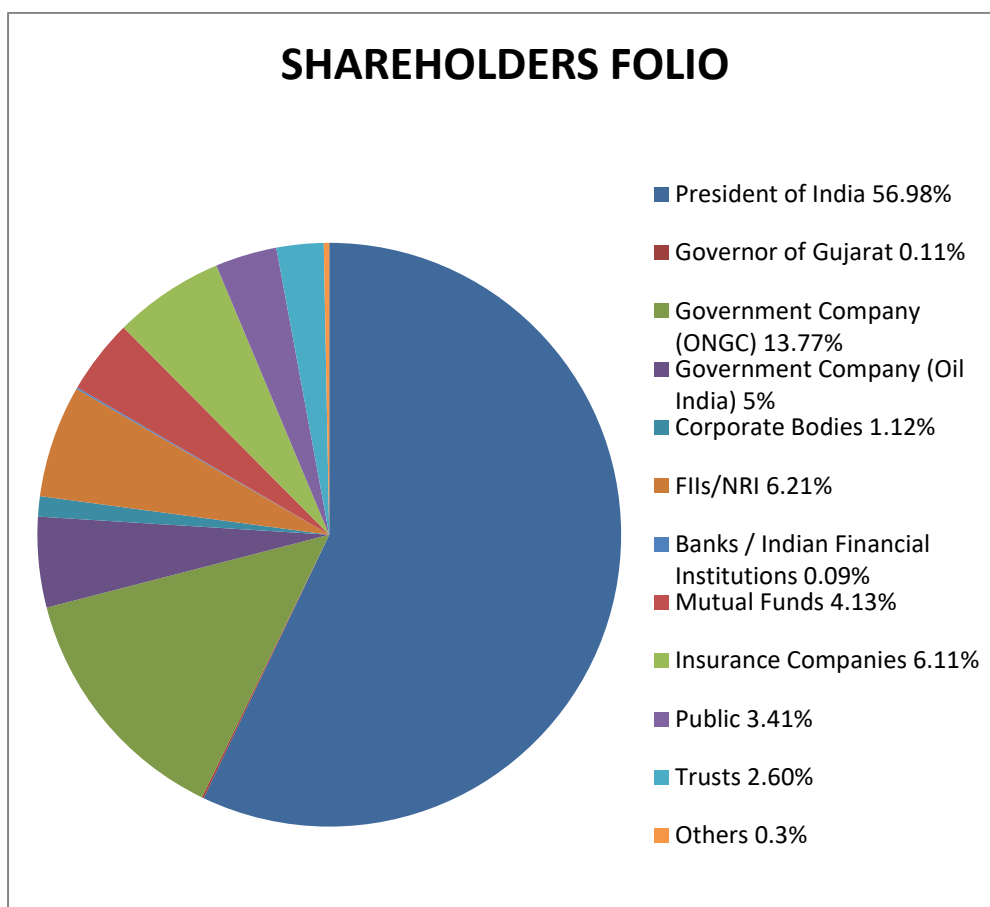
storage terminals and installations, inland depots, aviation fuel stations, LPG bottling plants and lube blending plants amongst others. The countrywide marketing operations are coordinated by 16 State Offices and over 100 decentralised administrative offices.

Marketing activities are spread across various regions of the Indian sub-continent and Asia. Its vast marketing infrastructure includes petrol/diesel stations, Indane (LPG) distributorships, SERVO lubricants & greases outlets and large volume consumer pumps. It also has bulk storage terminals/ installations, depots, aviation fuel stations, LPG bottling plants and lube blending plants etc.

(e) ORGANISATIONAL STRUCTURE

The organizational set-up of IOC is divided into five functional division's viz. Refineries, Pipelines, Marketing, Research & Development and Corporate office. The Head Office of Refineries Division is located at New Delhi, Pipeline Division at Noida, Marketing at Mumbai and the R&D Division at Faridabad.

(f) CAPITAL STRUCTURE:



(g) BUDGET AND PLANNING:

The Budget of the Company is broadly divided into-

- i). Plan capital expenditure budget as provided in the Five Year Plans of the MOP&NG
- ii). Non-Plan Capital Expenditure budget for non-plan expenditure of Capital nature and
- iii). Revenue Budget.

Plan Capital Budgets of the Company are approved by Ministry and operated by the Company for actual execution of scheme/projects. The non-plan Capital and Revenue Budgets are put up to the Board for approval based on the annual business plan (major head wise).

The Management compares the actual expenditure incurred against any scheme/project with the budget approvals and necessary rectification/approvals are to be taken from the competent authority for any variation and submitted to board for approval.

21 ACCOUNTING SYSTEM:

Accounting for purchase of petroleum products are done at location level for receipts of goods and Payments/settlements are done at Regional / Head Office. Accounting for stock transfer from own Refinery and from other Regions/locations are done at location level.

Sales accounting are done at location level, customer balances are monitored at Divisional/Area Office/State Office/Regional Office level. Accounting/capitalization for fixed assets is done at State level. Vendor payments are decentralized to the locations. Collections from customers (other than B2B mode) are accounted at location/division/area office/state office depending upon the nature of the customer. Freight and transportation accounting are done at location level. Employee payments are done through centralized payroll. Regional Office and each State Office have unique company code in SAP. Trial balance is generated at company code level. Balance Sheet and Profit & Loss Account are prepared and signed at Regional Office based on consolidated trial balance of all company codes under the Region. Signed accounts are sent to HO for consolidation.

22 MANPOWER ANALYSIS:

Indian Oil Corporation Limited has manpower of 33157 employees consisting of 17123 executives and 16034 non executives as on 31.03.2018.

23 MOU TARGETS AND ACHIEVEMENTS FOR LAST THREE YEAR:

The company has achieved 'Excellent' rating for the past three years.

AUDITABLE UNITS OF THE IOC, MARKETING DIVISION, HEAD OFFICE:

Sr. No.	Name of Unit	Risk Profile
1	LPG	High
2	Supplies: Commercial, Supplies & Distributions, Shipping	-do-
3	Consumer Sales	-do-
1	Finance, Pricing & Refinery Liaison Office	Medium
2	Lubes	-do-
3	Aviation	-do-
4	Retail Sales & Retail Automation	-do-
5	Engineering & Projects Maintenance & Inspection	-do-
6	HRD/ entitlement etc. (includes Admn, MS,ER HR &Trg.)	-do-
7	Operations Infrastructure Development	-do-
8	Contract cell	-do-
9	Planning & Economic Studies	-do-
1	Information System	Low
2	Branding & Corporate Communication	-do-

3	Quality Control,	-do-
4	Health, Safety Environment	-do-
5	Mumbai Aviation Fuel Farm facility Limited	-do-

AUDIT SCOPE OF O/O PDCA/MAB-II, MUMBAI

This Office is a sub-auditor and the audit purview of this office is restricted to audit of Marketing Division head office & IOCL/WR including Gujarat State Office located at Ahmedabad under Western Region, Pipelines Division located at Rajkot and Refinery Division located at Vadodara.

GUJARAT REFINERY OF IOCL UNDER THE AUDIT PURVIEW OF LAP III/BARODA

Gujarat Refinery, a unit of Indian Oil Corporation was commissioned in June 1966 with an initial capacity of two million metric tons per annum. The capacity was subsequently increased to 3 MMTPA in September 1967, 7.3 MMTPA in October 1987, 9.5 MMTPA in April 1989, 12.5 MMTPA in September 1999 and 13.7 MMTPA since July 2000 with periodical modifications and revamp of process units.

24 COMPUTERIZATION:

IOCL, has adopted SAP. Corporation has started B2C and B2B transactions using SAP. Full grown satellite application for different business modules across ERP are in place. Cashless model of payment adopted through online payment modes with business partners and vendors through e-payment using the banking facility and in retail operation using payments wallet are being encouraged. The company is working towards centralization of IT operation for better manageability and consolidation to bring uniformity in the areas like software development, managing of infrastructure (data center, network, database), security AMC etc and devising common set of policies which would be uniformity applicable to all divisions.

During the last three years no audit of IT System was conducted.

25 INTERNAL AUDIT:

The company is having separate Internal Audit Department, which draws its annual audit plan from the data bank auditable units (Audit Universe). The Audit Plan Audit Universe are discussed in detail with Audit Committee constituted by the Board of Directors.

In the month of March, Internal Audit- Corporate Office formulates detailed Annual Audit Programme listing out audit areas to be covered during the year. In this process feedback from Divisional IA is sought for incorporating new risk areas/subjects. The form and content of the audit programme and the extent of coverage is designed to achieve the objectives of Internal Audit & Organizational goals. Audit Programme is put for approval by Chairman before commencement of new financial year. Approved Audit programme is also presented before Audit Committee.

The Annual Audit Programme (AAP) broadly comprises of the following:

- Propriety Audit to be covered during the Financial Year,
- Special Studies to be covered during the Financial Year,
- Special Audit of JV/Subsidiary/Overseas Offices
- Audit of quarterly/annual accounts and
- Audit of Technical Subjects

Internal Audit Manual is available on the intranet of the company.

26 ACT, RULES, OTHER DOCUMENTS APPLICABLE FOR THE CPSE :

The Company is governed by the following Acts, Rules etc.

- I. The companies Act, 2013 (the Act) and the rules made thereunder;
- II. The Securities Contracts (regulation) Act 1956 ('SCRA') and the rules made thereunder;
- III. The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;
- IV. Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent applicable to Foreign Direct Investment, Overseers Direct Investment and External Commercial Borrowings;

V. The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):

(a) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009 to the extent of provisions relating to issue of shares by way of bonus;

(b) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;

(c) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;

(d) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008; and

(e) The Securities and Exchange Board of India (Registrar to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client.

Following Regulations and Guidelines prescribed under the SEBI Act if any of the activities during the audit period undertaken by the company:-

(a) The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014; and (b) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009;

(c) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998.

VI. Guidelines on Corporate Governance for Central Public Sector Enterprises issued by the Department of Public Enterprises.

VII. The following Acts and Rules made thereunder pertaining to oil and gas business, as applicable to the Company:

(a) Oil fields (Regulation and Development) Act, 1948;

(b) Petroleum Act, 1934;

(c) Mines and Minerals (Regulation and Development) Act, 1957;

(d) Petroleum and Minerals Pipelines (Acquisition of Right of User Inland) Act, 1962;

(e) Oil Mines Regulations, 1984;

(f) Petroleum & Natural Gas Rules, 1959;

(g) Petroleum Rules, 2002;

(h) Oil Drilling and Gas Extraction Industry Standards, 1996; and

(i) The Oil Industry (Development) Act, 1974.

VIII Secretarial Standards in respect of Meeting of Board of Directors (SS-1) and General Meetings (SS-2) issued by the Institute of Company Secretaries of India.

IX Compliance with SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 (LODR).

(a) OPERATIONAL RESULTS FOR LAST THREE YEARS

	2017-18	2016-17	2015-16
Operating Performance	MMT		
Product Sales			
Domestic			
Petroleum Products	77.133	74.110	72.603
GAS	1.904	1.920	1.929
Petrochemicals	2.275	2.453	2.413
Explosives	0.177	0.158	0.144
Total Domestic	81.489	78.641	77.089
Export	7.274	4.849	3.575
Total	88.763	83.490	80.664
Refineries Throughput	69.001	65.191	56.694
Pipelines Throughput	85.675	82.490	79.824

(b) FINANCIAL WORKING RESULTS FOR LAST THREE YEARS

Consolidated Financial working results of the company including its subsidiaries, joint venture entities are as follows:

Particulars	2017-18		2016-17		2015-16	
	(US\$ Million)	(₹ in Crore)	(US\$ Million)	(₹ in Crore)	(US\$ Million)	(₹ in Crore)
Revenue from Operations						
(Inclusive of Excise Duty & Sale of Services)	79,979	5,15,542	67,640	4,53,795	62,189	4,07,089
Profit Before Tax	5,344	34,450	4,167	27,956	2,761	18,072
Profit After Tax	3,510	22,626	3,038	20,385	1,896	12,413
Less: Share of Minority	68	437	80	536	60	391
Profit for the Group	3,442	22,189	2,958	19,849	1,836	12,022

27 DISINVESTMENT:

2015-16:

The Govt. of India had disinvested in August, 2015, 10 per cent of the equity share capital of IndianOil, i.e., 24,27,95,248 equity shares under the 'Offer for Shares' at a floor price of ` 387/- per share. Consequently, the holding of the President of India in the equity share capital of IndianOil was reduced to 58.57 per cent. Subsequently, under an Employee Offer, the Govt. of India transferred 71,39,518 equity shares in favour of eligible employees at a price of ` 367.65 per share on 31.05.2016. Consequently, the holding of the President of India has been further reduced to 1,41,50,10,529 shares constituting 58.28 per cent of the equity share capital.

2016-17:

The Government of India disinvested 3,32,76,129 equity shares in January, 2017 and 1,24,64,272 equity shares in March 2017 in IndianOil in favour of CPSE ETF (an exchange traded fund comprising PSU stocks). Consequently, the holding of the President of India in the equity share capital of IndianOil was reduced to 57.34 per cent.

2017-18:

The Government of India disinvested 1,75,62,435 equity shares of the Corporation November, 2017 in favour of BHARAT 22 EFT (an exchange traded fund comprising 22 PSU stocks). Consequently, the holding of the President of India in the equity share capital was reduced to 56.98 per cent from 57.34 percent.

(a) AUDITABLE UNITS AND RISK ANALYSIS
IOCL HO UNITS

1.	Retail Sales & Retail Automation	HIGH
2.	HRD/ Entitlement etc. (includes Admn, MS, ER HR & Trg)	HIGH
	Medium Risk	
1.	Finance, Pricing & Refinery	MEDIUM
2.	LPG	MEDIUM
3.	Lubes	MEDIUM
4.	Supplies: Commercial, Supplies & Distributions, Shipping	LOW
5.	Aviation	MEDIUM
6.	Consumer Sales	MEDIUM
7.	Engineering & Projects Maintenance & Inspection	MEDIUM
8.	Operations & Infrastructure Development	MEDIUM
9.	Contract Cell	LOW
10.	Information System	MEDIUM
11.	Branding & Corporate Communication	MEDIUM
12.	Quality control	LOW
13.	Health, Safety Environment	LOW
14.	Planning & Economic Studies	LOW
IOCL (WR)UNITS		
15.	Maharashtra State Office	HIGH
16.	Madhya Pradesh State Office	HIGH
17.	Mumbai Divisional Office	HIGH
18.	Pune Divisional Office	HIGH
19.	Raipur Divisional Office	HIGH
20.	Bhopal Area Office	HIGH

21.	Finance Department	HIGH
22.	Human Resouce Department	MEDIUM
23.	Aviation Department, Marine	MEDIUM
24.	Contract Cell at WRO for three State Offices	MEDIUM
25.	Cryogenics Plant at Nashik, IBP Division	MEDIUM
26.	Lube /Grease Plants in WR	LOW

28 BRIEF ON STATE OFFICE

The State Offices were formed in December 1998 /January 1999.

1. The Maharashtra State Office (MHSO) is under the control of Executive Director. MHSO is the controlling office for the units in the States of Maharashtra and Goa with five Divisional Offices, three Area Offices, eight Terminals, , three LPG Bottling Plants, eight Depots, ten Aviation Fuel Stations and Lube Blending Plants at Taloja, (Special Lube blending Plant) Silvassa & Vashi (Grease blending Plant).
2. Madhya Pradesh State Office (MPSO) is under the control of General Manager. MPSO is controlling office for units under the States of Madhya Pradesh & Chhattisgarh having four Divisional Offices, four Area Offices, two Terminals, nine Depots, four LPG Bottling Plants & three Aviation Fuel Stations.

Following areas are seen during the audit of State Offices:

- Scrutiny of /Purchase Requisition/Purchase Orders/ Contracts
- Review of Policy decision /Guidelines of Head Office /Corporate Office and its implementation
- Scrutiny of Capital & Revenue Budget and the actual expenditure
- Status report on projects, WIP, delay, cost overrun, liquidated damages, payments, escalation, deviation, etc.
- Scrutiny of Legal/Arbitration cases
- Stock loss reports/cases of fraud, misappropriation, pilferage etc.
- Automation of Terminals
- Verification of idling of assets
- Reconciliation of records relating to major Government consumers
- Internal Audit Report and its compliance
- Sundry debtors, sundry creditors, reconciliation and payments relating to major customers

- Verification of investment, title deeds of assets.
- Approvals of major decisions on projects, contracts, Board decisions etc.
- Corpus Fund Scheme

(a) BRIEF ON TERMINAL

Terminals under Indian oil Western region receive petroleum products viz. Motor Spirit (MS), High Speed Diesel (HSD), Low Speed Diesel (LSD), Superior Kerosene Oil (SKO), Aviation Turbine Fuel (ATF) through pipelines/tank wagons from the refinery. Refinery looks after the storage of these products. Ethanol storage and blending is also done at the Terminal. Government of India mandated 10% of blending of ethanol with petrol for saving of petrol to the extent of its blending and consequent foreign exchange

Following areas are seen during the audit of Terminals:

- MIS Reports>Returns of various departments/wings
- Review of Stock loss at Terminals
- Automation System
- Demurrage Payment, Tank Wagon Utilization
- Execution of Contracts for various projects, Maintenance contracts etc.
- Physical Stock Verification and Stock as per SAP records
- Tank Capacity and its utilization
- Vehicle Track System, Loading /Transportation of Products, Calibration of tank measurement, weigh bridge etc.
- Verification of cash and credit facility to dealers/direct customers
- Statutory payments/ Validity of licenses
- Implementation M.B. Lal's Recommendation
- Idling of assets/land/inventories, slow moving items
- Quality Control of the products
- Details of stock transfers from other terminals / transfers to other terminals

(b) BRIEF ON DIVISIONAL OFFICE:

Divisional Office undertakes the distribution of petroleum products in the districts covered under the division. The functions of Divisional Office are bifurcated in to Retail Sales and Consumer Sales. The Retail Sales deals with the sales through Retail outlets (ROs) & Company Owned Company Operated (COCO). Consumer sales provide complete Fuel Management Solutions to customers who require fuels in bulk and have dedicated facilities for storage and handling.

Following areas are seen during the audit of Divisional Office:

- MIS Report of retail sales and consumer sales for sales performance, variance in sales quantity and price, budgeted sales and actual sales, sales returns, quality issues, stock losses, etc.
- Scrutiny of records pertaining to major consumers, vendors, agreements with the Retail Outlet/COCO dealers/contractors, etc.
- Sundry debtors, Sundry creditors, related payments settlement to vendors and collection from Consumers, reconciliation with the Customers, Monitoring System of credit, etc.
- Verification of discount, cash and credit policy in the case of bulk sales/dealers/direct customers.
- Inventories, revenue expenditure, idling of assets, stocks, etc.
- Delay in execution of the Project/job/installation work, etc.
- Title verification of the assets owned by the Company, lease deed, etc.
- Scrutiny of works awarded and executed by the division.
- Accounts submitted to the Region and Bank reconciliation statements.
- System of Automation.
- Compliance of Statutory regulations, validity of licenses from the authorities, Environment Clearances for the operations, etc.

(c) BRIEF ON BOTTLING PLANTS

Bottling Plant receives bulk Liquefied Petroleum Gas (LPG) from refinery through tank trucks/rail tank wagons. The bulk trucks/ wagons are unloaded and stored in tanks at the bottling plant. These LPG are bottled in cylinders of 5 Kg/14.2 Kg distribution to domestic and 19 Kg/47.2 Kg to commercial customers through electronic carousel filling and testing system.

Following areas are seen during the audit of Bottling Plants

- Review of bulk receipts and dispatch records
- Scrutiny of losses
- Verification of idling of assets land, inventories, etc
- Records relating to recoveries from distributors, missing wagons,
- Cases of Accidents
- Review of MIS Reports,
- Validity of licenses, compliance to statutory regulations, Environment Clearances, etc

- Verification of discounts, cash and credit policy to dealers/direct customers, etc
- Calibration records of tanks/weigh bridges, Carousel System for filling up cylinders
- Implementation of M.B Lal Recommendations

(d) BRIEF ON AREA OFFICE:

Area Office deals with the activities of Sale of LPG in the districts attached to this Area Office. The demand for LPG is raised to the nearby bottling plant for distribution for retail sales and bulk consumers as per the supply and distribution plan received from HO on quarterly basis. Area Office identifies the Corpus Fund/Recoverable Financial Assistance provided to the LPG Distributors and reports the outstanding, interest and its recovery to State Office.

Following areas are seen during the audit of Area Office

- MIS on distributor-wise status of reconciliation
- Verification of Idling of Assets, Land, Non moving inventories
- Reconciliation of records relating to recoveries from dealers
- Implementation of HO Guidelines
- Execution of Projects/WIP
- Verification of the Corpus Fund scheme/Financial Assistance Infrastructure to LPG Distributors & its recovery
- Agreements with dealers/ landlords, etc
- Title deeds of investments of Companies, Lease deed, etc
- Shortages/surplus, reconciliation of book balances with SAP records, for all the distributors, Equipment Movement Record(EMR) for cylinders and pressure regulators
- Recovery from transporter for shortages.

(e) BRIEF ON DEPOTS

Depots receive petroleum products from terminals/refineries such as MS, SKO, LDO, FO, ATF and store the products. These products are supplied by the Depots to various bulk consumers and retail outlets. ATF are supplied to the Airlines in and around the neighboring districts through tank trucks/tank wagons. The contracts for tank trucks are finalized at Regional Office.

Following areas are seen during the audit of Depots:

- Verification of MIS report for retail sales and consumer sales
- Sales performance/Retail outlets non performance, etc.
- Discount/credit cap management, Xtra Rewards/incentive, etc

- Shortages of the products beyond the norms/abnormal losses, recovery for losses from the truck contractor, etc.
- Contracts finalized and executed by the Depot
- Automation System at the Retail outlets
- Compliance to various statutory regulations/licenses
- Verification of title deeds/assets/RO site lease documents, etc

(f) BRIEF ON IBP CRYOGENICIS, NASIK

There are two main product groups Cryocans (CC) and Industrial Containers (IC) manufactured and IBP division - Business Group (Cryogenics) at Nasik.

The Division is merged with Western Region during 2016-17 and forms part of the accounts of Western Region.

Cryocans are small size containers made of aluminum and are primarily used for storing frozen bull semen for artificial insemination and fertilization by Animal Husbandry Departments, Milk Federations, Agricultural Universities, Medical Research Centers & Research Laboratories, etc. Industrial Containers used for storage and transportation of Cryogenic fluid ie Liquid Nitrogen/Oxygen used by Gas Manufacturers, Research bodies, Navy, etc.

The Division is headed and managed by the Chief General Manager /Chief Executive of Business Group (Cryogenics).

Following areas are seen during the audit of IBP Cryogenics :

- MIS Reports on Performance
- Purchases/Import Details
- Production Plan and actual production
- Inventories lying unused/Obsolete and non moving containers/
Idle stock, Physical Verification Report,
- Reconciliation of physical stock with SAP records
- Sundry debtors/Sundry Creditors, outstanding with the customers
- Verification of Assets/title deeds
- Agreements with the Customers/Service providers,etc
- Contracts awarded and executed by the Division
- Compliance to Statutory regulations/Licenses/Clearances, etc

(g) BRIEF ON LUBE/GREASE BLENDING PLANT

Lube Blending and Grease Blending Plant under Marketing Division carries out the production activities of lubricant of various grades of lubes and grease. The Plant is headed and managed by General Manager and controlled by the Lube Department at Marketing Head Office. Executive Director controls the activities of blending plants. SERVO brand, from IndianOil, is the brand leader among lubricants and greases in India. SERVO serves as a one-stop shop for complete lubrication solutions in the automotive, industrial and marine segments.

Special Lube Blending Plant at Taloja commissioned in the year 1999 carries out blending of specialty grades of lube oils. The Plant has storage facility of imported additives.

Lube Blending Plant, Silvassa was commissioned in 2000. The Plant produces different grades of automotive lubricant and Electra (Industrial Lubricant). This Plant supplies lubes to direct customers and stock transfers to Carrying and Forwarding Agents (CFA) to sell the product.

Grease Blending Plant at Vashi was commissioned in October 1990 and the plant carried blending activities of different grease. The grease are filled up in bulk, barrel and small cans.

The Small Can Filling Plant receives the products received through pipeline/trucks/tank wagons are filled in small barrels and small cans.

Following areas are seen during the audit of Lube/Grease Blending Plant & SCFP :

- MIS Reports on Production and Sales, Actual production against planned production, Capital/Revenue expenditure
- Purchase Orders/procurement orders of small can packing materials, labels, Contracts awarded and executed by the Division
- Capacity utilization of plants,
- Sundry Creditors/Sundry Debtors, Reconciliation with direct consumers & CFA.
- Inventories/stock lying unused, slow moving/Non-moving stock/Obsolete stock/Contaminated additives, etc
- Supply and Distribution Plans , Transportation to Customers/Depots
- Capital Expenditure/Revenue Expenditure against the budget

- Operating Cost
- Import details, Payments, demurrages, etc
- Compliance to Statutory Regulations/Clearances/ Licenses, etc.
- Verification of assets, lease deeds, etc
- Agreements with the CFA
- Discount/Credit Cap Management, etc

(h) BRIEF ON AVIATION FUEL STATION

Aviation Fuel Station (AFS) receives Aviation Turbine Fuel from Depots/Terminal/Refineries for supplies to the Airlines. AFS has storage facilities and Quality of Supplies are ensured for each supply.

Following areas are seen during the audit of Aviation Fuel Station

- Inspections: QC/Aviation department and their compliances etc.
- List of capital assets with the AFS
- Stock loss control and performance
- List of Carnet customers/ carnet outstanding correspondence
- VIP refueling/ Airport safety meetings minutes
- Consumer sales- domestic/International
- Refuelling risk insurance
- Monthly returns (MIS)
- Correspondence with AAI, Air India, India Airlines, defense, DGCA regarding Land
- Lease, rental or purchase for aviation facilities.
- Tankage utilization statement/Aviation equipment
- Payment terms in respect of Airlines
- Correspondence with individual airlines i.e., customers.

29 ENVIRONMENT MANAGEMENT

The company has taken following initiatives in the area of the Environment Management:

All refineries of the Company are certified to ISO:14064 standards for sustainable development as well as for the Occupational Health & Safety Management System (OHSMA/OHSAS-18001),

Compliance with safety systems and procedures and environmental laws is monitored at the unit, division and corporate levels.

The Health Safety & Environment (HSE) activities of the Company are reviewed in every Board meeting.

Safety audits are carried out at various offices and locations and various training programmes are also conducted across the company covering safety-related topics.

Significant information relating to the Company based on the audit experience.

The company is a major Oil Marketing Company (OMC) in the public sector. Of the three OMCs viz. HPCL, BPCL and IOCL, the company account for nearly fifty percent of the Retail Outlets which are 27,089 in number as on 31st March 2018. As on 31st March 2018, the company owns 11 (including two of its subsidiary) of India's 23 refineries with a combined refining capacity of 80.70 MMTPA, accounting for 33% of domestic refining capacity. With its size and operations, the company is playing a leading role for the Oil Marketing Companies.

CHAPTER - V

AVIATION SECTOR

AIR INDIA LIMITED

A INTRODUCTION

Air India Limited (AIL) is the [flag carrier](#) airline of [India](#), headquartered at [New Delhi](#). It represents the merged company which came into existence consequent upon the amalgamation of erstwhile Indian Airlines Ltd and erstwhile Air India Ltd as on 1st April 2007. The amalgamated company was known as National Aviation Company of India Limited (NACIL). The name of the company was changed to “Air India Ltd.” w.e.f 24 November 2010. AIL is engaged in airline related business, which is its single primary business segment provides domestic and international air transport services. AIL is under the administrative control of Ministry of Civil Aviation. The Airline Industry has generally been affected by intense competition, economic slowdown and high input costs. During the financial year 2011-12, AIL has adopted/ implemented a Turnaround Plan (TAP) and a Financial Restructuring Plan (FRP) to improve its operational and financial performance. Accordingly, Government of India (GoI) is infusing funds into the company in terms of TAP/FRP. AIL operates a fleet of [Airbus](#) and [Boeing](#) aircraft serving 94 domestic and international destinations. AIL has its hub at [Indira Gandhi International Airport, New Delhi](#), alongside several focus cities across India. Over 60 international destinations are served by AIL across four continents. AIL has five subsidiaries namely (1) Air India Express Limited (2) Air India Engineering Services Limited (3) Air India Air Transport Services Limited (4) Hotel Corporation of India Limited (5) Airline Allied Services Limited and one Joint Venture with Singapore Airport Terminal Services Limited namely AISATS.

As per Hqrs. Letter dated CA-III/Mum-II/Restructuring/42-2018/429 dated 02.08.2019 the Air India Limited has been entrusted to O/o MAB-I, New Delhi and this Office is the Sub-Auditor for Air India Limited. This Office continues to be Principal Auditor for Air India Express Limited and Hotel Corporation Limited.

1 VISION

To be the leader in Indian aviation and India's Ambassador to the world.

2 MISSION

Leadership

1. Customer Provide safe, reliable and on-time services
2. Deliver the highest quality of service around the world
3. Be the epitome of Indian hospitality

Processes

1. Continuously improve standards of safety and efficiency
2. Operate and maintain a young and modern fleet
Provide the best and most efficient network
3. Create economic value People
4. To be the employer of choice, Build a highly motivated and professional team,
Maintain highest degree of transparency and ethics & Be a responsible corporate citizen

India's Ambassador

1. Be India's flag carrier in spirit and action
2. Provide seamless travel within India and the world
3. Connect Indians worldwide.

3 OBJECTIVES

- i) Ensure safe, secure and sustainable aviation industry through use of technology and effective monitoring
- ii) Enhance regional connectivity through fiscal support and infrastructure development.
- iii) Enhance ease of doing business through deregulation, simplified procedures and e-governance
- iv) Promote the entire aviation sector chain: cargo, MRO, general aviation, aerospace manufacturing and skill development.

4 ACTIVITIES

To establish, maintain and operate international and domestic air transport services, scheduled and nonscheduled, in all the countries of the world for the carriage of passengers, meals and freight and for any other purposes

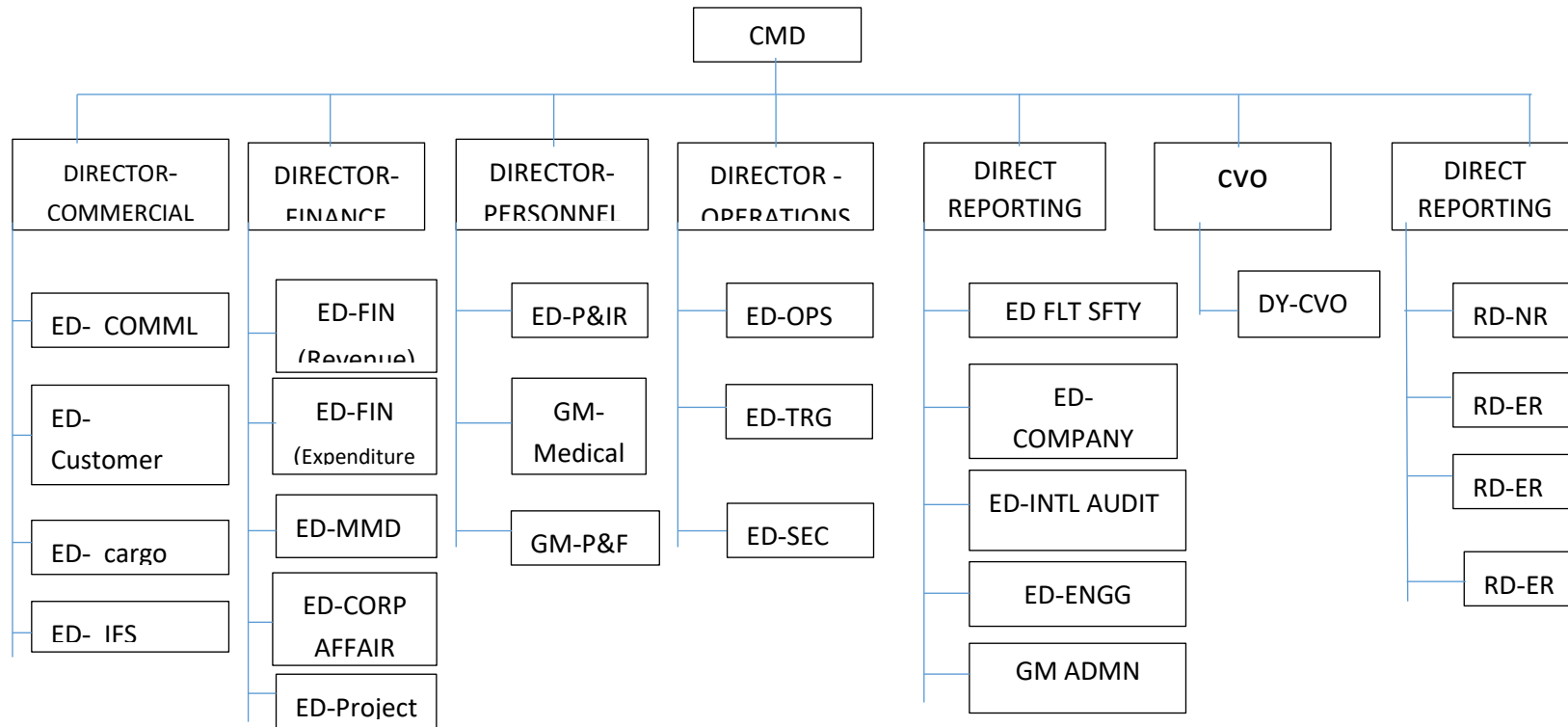
ORGANISATIONAL SET UP:

The governance of the AIL is carried out under the overall supervision and guidance of the Board of Directors. To facilitate effective governance, AIL is organized into functional as well

as territorial divisions for decision making. The levels of corporate governance structure of AIL are as follows:

- i. The Board of Directors and the Committees of the Board
- ii. The executive Management Committee
- iii. The Chairman and Managing Director
- iv. The functional directors
- v. Heads of Department
- vi. The Regional Heads
- vii. Regional Managers
- viii. The Field Offices

5 ORGANOGRAM:



6 CAPITAL STRUCTURE:

The Authorised Capital and the paid up capital of the Company as on 31st March 2018 were ₹ 300000 million and ₹ 2,86,902 Million respectively. During the year 2017-18 GoI infused Equity Capital of ₹.18000 million and further, Equity of ₹6500 Million and ₹ 9800 Million was infused by the GoI during April 2018 and August 2018 respectively. The shareholding of the GoI is 100 *per cent*

7 BUDGET AND PLANNING:

AIL does not receive any grant from the GoI under either Capital or Revenue Heads. However, as per the approved Turnaround Plan for AIL, the GoI since 2012 has been infusing Equity into the company to support cash deficit, repayment of government guaranteed Aircraft Loans etc. As at the end of 31st March 2019, a total amount of Rs.305202.10 million has been infused as equity capital by GoI under TAP/FRP of AIL.

The year wise details are as follows

Year	Equity (In crores)
2011-12	1200
2012-13	6000
2013-14	6000
2014-15	5870
2015-16	3300
2016-17	2465.21
2017-18	1800
2018-19	3975
Total	30520.12

B ACCOUNTING SYSTEM

Air India has adopted Decentralized system of Accounting. The Company has following accounting units/division, work on SAP Accounting Software:

- Registered Office (DELHI)

- Northern Region (DELHI)
- Central Revenue Account (DELHI)
- CAO (MUMBAI)
- Western Region (MUMBAI)
- Eastern Region (CCU)
- Southern Region (CHENNAI)
- Hyderabad

The records are maintained at Regional level and similarly the Trial Balance is also prepared and audited at above Regional level. However, the Consolidated Financial Statements of AIL are prepared at Headquarters (DELHI).

1 MANPOWER ANALYSIS

AIRINDIA LIMITED - PERSONNEL DEPARTMENT										
Category wise Employees strength - AI as on 01.06.2019				Retirements- Permanent Employees						
EXECUTIVE (AGM & above)	PERMANENT	CONTRACTUAL	GRAND TOTAL	2019	2020	2021	2022	2023	TOTAL	% of Retirements
Pilot	292	0	292	7	17	22	31	33	110	37.67
Flt. Ops Officer	43	0	43	3	4	2	7	5	21	48.84
Gen. Catg. Officer	483	2	485	53	55	52	50	41	251	51.97
OFFICERS (A.M to										
Cabin Crew Officer	694	21	715	32	81	75	99	109	396	57.06
Flt. Ops Officer	66	0	66	1	2	8	5	5	21	31.82
Gen. Catg Officer	2821	150	2971	153	311	341	327	284	1416	50.19
WORKMEN										
Line Pilot	1024	570	1594	9	14	10	9	14	56	5.47
Cabin Crew	988	2522	3510	0	1	1	2	1	5	0.51
Technician	44	0	44	0	12	6	5	0	23	52.27
Clerical	1458	286	1744	51	105	94	95	94	439	30.11
Unskilled	1921	5	1926	79	197	201	174	196	847	44.09
Total	9834*	3556	13390	388	799	812	804	782	3585	36.46
*Including 12 employees on deputation to GOI										

2 MOU TARGETS

The Company was evaluated for MoU by DPE after the self-evaluation of the CPSE for the year 2015-16. As per the CPSE the evaluation consolidated marks 65.02 which was rated as Good and by the DPE the marks given was 72.38 which was rated as Very Good.

During the year 2016-17, the Company evaluated itself with a score of 59.03 marks which was rated as Good and the score as per the Evaluation Committee consisting of NITI Aayog and Ministry evaluated the Company with 45.81 marks which was rated a Fair.

3 COMPUTERIZATION

Project 'Sangam' was adopted by AIL in February 2011 with a goal to achieve 'Business integration and Harmonization by establishing standardized business process across the Company for unified organisation'.

The intended benefits of the project were to :

1. Integration of systems to provide better and accurate decision making support
2. Unified back office across all the entities
3. Standardization and Harmonization of processes to eliminate redundant processes.
4. Single source of employee data
5. Better cost analysis
6. Reduction of operational costs as a percentage of revenue.

(a) SAP Functionality in Air India

Component	Sub Component
Financial Accounting (SAP FI)	General Ledger Accounting, Cash Journal New General Ledger, Profit Centers/ Document splitting/ Parallel ledgers, Receivable and Payable Accounting Bank Accounting, Cash Journal Fixed Assets Accounting Taxation - Direct and indirect Period end closing Chart of Accounts Enterprise structure Profit and Cost Center Structure

	Trail Balance at GL level.
Funds Management	Funds Centers, Commitment items, Opex Budget Control Procurement Budget Control Budget versus actual
Controlling	Cost Center and Cost Element Accounting Internal order Management Profitability analysis (Route profitability)
Project system	Project Master Data Capex Budgeting Project Dash Boards Confirmations Project Planning, Investment management
Treasury Risk Management	Cash Position and Liquidity forecast Forex Accounting, Borrowing Handling
Material Management	Purchasing and Contracts Inventory Management Invoice verification Physical Inventory, Vendor Evaluation Valuation of Inventory Material Information System
Sales and Distribution	Sales order processing Delivery, Billing Credit Management
Plant and Maintenance	Equipment Master Data Work order processing Integration touch points with Plant maintenance orders
Quality Management	Inspection Lots Quality Information records Quality Check at the time of receipt
Business Intelligence	BI Reports for Finance, Purchase and HR, Custom Reports
Process Integration	Interface with other applications
Governance and Risk Control	Access control and Process Control
Profitability and Cost Management	Route wise Profitability
Supplier Relationship Management	E-tendering, shopping cart

As per Statutory Auditor's Qualified opinion on the Financial Statements for the year ending 31 March 2018:

1. The company did not have an effective interface between various functional software relating to Sales/Revenue and Inventory Management with the accounting software resulting in accounting entries being made manually on periodical basis
2. The company did not have an appropriate internal control system for reconciliation of Control Accounts in relation to the Sales / Revenue, Inventory and Payroll.
3. The company did not have an appropriate internal control system for deduction, timely deposit and reconciliation of statutory dues
4. The company did not have effective internal audit system commensurate with the size, nature and complexities of the business.
5. The company did not have an appropriate internal control system for obtaining confirmation of balances on a periodic basis and reconciliation of unmatched Receivables and Payables.
6. The Company did not have an effective Information system audit to evaluate and test the IT general controls, which may affect the completeness, accuracy and reliability of the reports generated from IT System
7. The company did not have an effective system for timely accounting of entries & approval thereof in IT System.

(b) Details of Software Applications

S.No.	Application Name	Details	Installation Location	IT System Architecture	In-house/ Outsourced
1	IAEPF application- Triple A solutions	Maintains details of IA employees provident and pension fund.	Computer Centre Air India New Delhi	Mini computer based/client Server System	Outsourced
2*	NIC eOffice	Efile handling	Hosted on Cloud in BSNL Internet Data Centre, Ahmedabad		Outsourced
3*	DMS	Document management and file repository for audit compliance.	Computer Centre, Gr. Floor, Accounts Bldg., OAP, Santa Cruz, Mumbai	Mainframe Based/ Client Server System	Outsourced Application hosted in-house.
4*	PROS - PASSENGER REVENUE OPTIMISATION SYSTEM	Passenger revenue optimisation through forecasting of final booking demand and allocation of RBD's	DIT Computer Centre, OAP, Santa Cruz (E), Mumbai	Mini Computer Based/File & Client Server System	Outsourced Application hosted in-house.

5	RAMCO IT MRO	Common platform for Maintenance, repair and overhaul of Aircrafts automating the processes of line and heavy maintenance, component and engine maintenance, quality assurance, production planning and control, material procurement, inventory payments and accounting functions	Production - Data Centre, Air India Computer Centre Building, New Delhi. DR - Data Centre, Air India OAP, Mumbai.	Server Based	Outsourced Application hosted in-house.
6	AI Website Multi-lingual, multi-country corporate website of Air India	Air India website, hosting information pertaining to Air India linked to Sita Booking Engine.	NIC Data Center Delhi	Server Based/Web based	Outsourced
7	Kale Amber	Cargo accounting system	Kale Mumbai	Server Based/ Web Based	Outsourced

8	Kale Custodian Management System	Application for interfacing LMS cargo system with the Customs system	Kale Logistics	Server Based/ Web Based	Outsourced
9	Kale REVERA	Paasenger Revenue Accounting	Accelya Kale	Open System	Outsourced
10	LMS CARGO	Sales, Booking,Schedule Management, Rates, ULD Management and Stock Control of Cargo	Minneapolis , U.S.A	Mainframe	Outsourced
11	NIC Email	NIC Email system	NIC Data Center Delhi	Server Based/ Web Based	Outsourced
12	Sabre CPCS	Movement manager for management of aircraft movement, Profit manger, Schedule manager for schedule planning	Sabre- Tulsa	Mainframe Based/ Client Server System	Outsourced
13	Sabre- FWZ	Flight planning system	Sabre- Vienna	Clent Server system	Outsourced
14	SAP ERP	Enterprise resource planning for HR, Finance and MMD.	Computer Centre Air India New Delhi	Based on Application Server, Database Server and Presentation/middleware Server	Outsourced
15	SDS Crew Management System	Crew rostering and management, day to day operation planning, disruption management, crew communication and crew portal.	Bengaluru	Server Installed by Sheorey Digital Systems	Outsourced

16	SITA DATAMART	REpository of data of the PSS system, integrated with Cargo, FFP and other applications to provide MIS reports to the management.	SITA Atlanta (U.S.A)	Mainframe-PC Based/ File Server System	Outsourced
17	SITA E-Commerce	Online Booking engine providing real time interface to the SITA system for booking, schedules, status, checkin.	SITA Atlanta	Server Based/ Web Based	Outsourced
18	SITA FFP-Loyalty Plus	Management of Frequent flyers	SITA ATLANTA - Mumbai Loyalty Plus - London,UK	Server Based/ Web Based	Outsourced
19	SITA i TRAVEL	Android and IOS mobile application for online booking, checkin and related services.	SITA Atlanta	Server Based/ Web Based	Outsourced
20	SITA Passenger Service Applications	Reservations-Fares-Ticketing- Departure Control Application- Checkin-Weight and Balance,BRS,Boarding Pass/Baggage Tag Printing- Message Switching-Frequent Flyer Application (Loyalty Plus)	SITA ATLANTA - Mumbai Loyalty Plus - London,UK	Server Based/ Web Based	Outsourced

21*	Contract Monitoring System	Online monitoring, alerts of contracts, MIS reports and reminders.	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
22	Customer Service Portal	On line feedback system which sends mails to passengers, consolidation of feedback.	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
23	eSuperSaver - (Business / Economy / NorthEast)	Online portal for e super saver promotional scheme facilitating purchase of coupons and redemption through integrated link with SITA system	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
24	L & F Baggage Portal Description of "L & F Items" have to be made available on AI website	repository of details of mishandled baggage by the various stations to facilitate search for mishandled baggage.	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
25	Medical Applications • Pharmacy • NMBS • MedicalBill	Automation of Procuremnet, stocking and distribution of medicines to dispensaries, Dispensation of medicines, referral slips in the pharmacy, processing of CFMS and REMS claims, processing of hospitals, consultants and chemists blls.	DIT Computer Centre, Palam.		In-house

26	Operations Portals - IOCC, HCC, Flight Dispatch, Movement Control, Flight Coordination	e log book, bulletin board, e diary, flight plan repository.	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
27	Rajbhasha Portal	Online filing of quarterly progress reports, automatic generation of alerts and consolidation of reports.	DIT Computer Centre, Palam.		In-house
28	SOL Online Passage System	Online issuance of SOL tickets approved on the SAP system and linked to SITA system	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
29	Staff Recruitment (Cabin Crew Recruitment for Air India / AICL / Alliance Air) Cockpit Crew Recruitment	Portal to handle recruitment facilitating online submission of applications, data validation, screening of candidates, sending call letter and results to the selected candidates	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house
30	TSC Online Application (Domestic Sectors)	Online portal for vendors/service providers who have a barter arrangement with Air India to book tickets	DIT Computer Centre, Palam.	Server Based/ Web Based	In-house

31	Air India Express	Corporate website for Air India Express. Static pages managed by IT	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
32	Avsec Portal	online submission of pre audit questionnaire by Security department on monthly basis , online generation and filing of action taken report, eaudit of all stations of Air India by BCAS.	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
33	Cargo Tracking	Tracking of Cargo booked through AI website interfaced with LMS	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
34	CTE Website	Provides information related to courses available in CTE.	DIT Computer Centre, Old Airport.	Mini computer based/client Server System	Inhouse
35	Flight Safety Portal	Online reporting of flight related incidents, updates related to safety bulletins, incidents, flight safety magazine.	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
36	Intranet portal	Hosting of staff notices, office orders and other internal communications.	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse

37	MMD website	Uploading of tender on AI website with automatic uploading on to the CPP website	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
38	Operations Website	Provides information to operating crew, on updated circulars, company advisories etc	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
39	Vigilance Website	Provides information related to Vigilance department and facility for online complaint filing.	DIT Computer Centre, Old Airport.	Mini computer based/client Server System	Inhouse
40	WAVE	REGistration and issuance of visitor entry pass to foreigners/contractuals/visitorby capturing their details	DIT Computer Centre, Old Airport. Mumbai	Mini computer based/client Server System	Inhouse
41	Fuel & Oil Bill processing	Processing of fuel and oil bills received from the various stations	DIT Computer Centre, Palam.	Server Based	In house
42	Postal Mail Billing	Billing of Domestic and International Mail	DIT, Delhi	Server based	In house

* unsupported

C INTERNAL AUDIT

AIL has independent internal audit systems to monitor the entire operations and services spanning over all locations, businesses and functions on a regular basis. AIL has a DGCA approved Corporate Quality and Safety Audit (QSA) Manual in accordance to which internal audits of online stations, departments, external service providers, functional departments, etc are conducted through Quality Assurance.

1 ACTS, RULES AND OTHER DOCUMENTS APPLICABLE FOR THE COMPANY

In aviation sector, following laws are specifically applicable to the Company:

Aircraft Act, 1934

Carriage by Air Act, 1972

Tokyo Convention Act, 1975

Anti-Hijacking Act, 1982

Suppression of Unlawful Acts against Safety of Civil Aviation Act, 1982

Civil Aviation Requirements issued by DGCA

(Source: Annual Report of AIL)

Rules Applicable

1. Amendment to the Aircraft Rules, 1937- reg.
2. Inviting comments of General Public on Amendment to the Aircraft Rules, 1937 for more effective implementation of Cape Town Convention and Cape Town Protocol in India
3. Inviting comments of General Public on Amendment to rule 62 of the Aircraft Rules, 1937(5th Amendment) for revision of fee charged for AME License Examination
4. Inviting comments of General Public on Amendment to rule 82 & 83 of the Aircraft Rules, 1937
5. Amendment to Schedule XI of the Aircraft Rules, 1937, for giving effect to the new FDI Policy of the Government-reg

6. Amendment to rules 38, 38A, 38B, 41, 41A, 45 and rules 3B, 14, 16, 17 etc. of the Aircraft Rules, 1937-reg.
7. Aircraft Security Rules 2011
8. AERA Appellate Tribunal Salaries and Allowances and Other Terms and Conditions of Service of the Chairperson and Other Members Rules, 2011
9. AERA Employees number of posts and conditions of service Rules, 2011
10. AERA, Appellate Tribunal Forms for Application and Appeal and Fee Rules, 2010
11. Airports Authority of India Major Airports Development Fees Rules, 2011
12. Aircraft Rules - 1937
13. Airports Economic Regulatory Authority of India Salaries, Allowances and Other Conditions of Service of the Chairperson and Members Amendment Rules, 2010
14. Aircraft Investigation of Accident and Incident Rules,2012
15. Airports Economic Regulatory Authority of India Salary, Allowances and Other Conditions of Services of Secretary Rules, 2009
16. Aircraft Security Rules, 2011
17. The Carriage of Dangerous Goods Rules, 2003
18. The Aircraft Demolition of obstructions caused by Buildings & Trees Rules, 1994
19. Amendment to the Aircraft Rules, 1937 regarding leasing & financing of aircrafts in accordance with Cape Town Convention
20. Amendment to the Aircraft Rules, 1937-Insertion of Part XII-A
21. Amendment to the Aircraft Rules, 1937 regarding Airline Transport Licensing
22. Airports Economic Regulatory Authority Secretary, Recruitment Rules, 2012
23. S.O. 84E - Rules governing the height of building Structure around Airports

Policies applicable:

1. Digi Yatra Policy Document
2. Policy for Training of Officers under IATA Training Programmes
3. Policy Guidelines on Air Freight Station AFS
4. Guidelines for Slot Allocation, Revised in May 2013
5. Guidelines for setting up of Greenfield Airports
6. Removal of Restrictions on Photography
7. Draft Regional Connectivity Scheme(RCS)

Notifications by Ministry of Civil Aviation:

1. Ministry of Civil Aviation (Height Restriction for safeguarding of Aircraft Operation) Rules, 2015
2. Amendment to the Ministry of Civil Aviation Height Restriction for Safeguarding Aircraft Operations
3. Amendment to the Ministry of Civil Aviation Height Restriction for Safeguarding Aircraft Operations
4. Invitation for participating in a live demonstration in connection of assessing or formulating requirements for counter drone technologies -extension of last date for submitting details.
5. Invitation for participating in a live demonstration in connection of assessing or formulating requirements for counter drone technologies
6. Ministry of Civil Aviation (Ground Handling Services) Regulations 2017
7. E-Gazette Notification No. GSR 1011 (E) dated 11.08.17 regarding Aircrafts (Investigation of Accidents and Incidents) Rules 2017
8. Amendment to Rule 39C of Aircraft Rules, 1937- regarding increasing the age limit for validity of class I medical examination of pilots from forty years to sixty years.
9. Notification Regarding Creation of AERA
10. Notification Regarding Commencement of AERA
11. Notification of Appellate Tribunal
12. Policy on Use of IT Resources of GoI
13. Reconstitution of AERA Appellate Tribunal
14. Extension of tenure of the Dharmadhikari Committee
15. Notification dated 31.08.2009 regarding Chapter III & Chapter VI of AERA Act,2008
16. Commencement of functions of AERA
17. Amendment of the Aircraft Rules, 1937 to make provisions for regulation of Gyroplanes, Remote Controlled Aircraft Systems and Amateur Built Aircraft-reg.
18. Gazette Notification of Ministry of Civil Aviation (Height Restrictions for Safe- guarding of Aircraft Operations) Rules, 2015
19. Amendment to Schedule XI of the Aircraft Rules 1937 Use of single engine aircraft for Scheduled Commercial Operations

20. Amendment to the Aircraft Rules pertaining to the licensing of Air Traffic Controllers

The following Regulations and Guidelines prescribed under the **Securities and Exchange Board of India Act,1992** are applicable to the company:

- (a) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008;
- (b) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993

Directorate General of Civil Aviation (DGCA) - Regulatory Body

The Directorate General of Civil Aviation is an attached office of the Ministry of Civil Aviation. Director General of Civil Aviation (DGCA) is the regulatory authority for the Aviation Sector in India. DGCA has developed the Regulatory Audit Program (RAP) to promote conformance with the aviation regulations and standards that collectively prescribe an acceptable level of aviation safety. It also ensures that Civil Aviation audit policies and procedures are applied uniformly. In addition, IATA conducts IOSA Certification every year and discloses its findings, which are required to be corrected. In addition, Air India has ED-Flight safety who continuously monitors the flight safety operations of the Company.

2 Functions of DGCA

1. Registration of civil aircraft;
2. Formulation of standards of airworthiness for civil aircraft registered in India and grant of certificates of airworthiness to such aircraft;
3. Licensing of pilots, aircraft maintenance engineers, air traffic controllers and flight engineers, and conducting examinations and checks for that purpose;
4. Certification of aerodromes;

5. Maintaining a check on the proficiency of flight crew, and also of other operational personnel such as flight dispatchers and cabin crew;
6. Granting of Air Operator's Certificates to Indian carriers and regulation of air transport services operating to/from/within/over India by Indian and foreign operators, including clearance of scheduled and non-scheduled flights of such operators;
7. Conducting investigation into incidents and serious incidents involving aircraft upto 2250 kg AUW and taking accident prevention measures including formulation of implementation of Safety Aviation Management Programmes;
8. Carrying out amendments to the Aircraft Act, the Aircraft Rules and the Civil Aviation Requirements for complying with the amendments to ICAO Annexes, and initiating proposals for amendment to any other Act or for passing a new Act in order to give effect to an international Convention or amendment to an existing Convention;
9. Coordination of ICAO matters with all agencies and sending replies to State Letters, and taking all necessary action arising out of the Universal Safety Oversight Audit Programme(USOAP) of ICAO;
10. Approval of institutes engaged in flying training including simulator training, AME training, air traffic services training or any other training related with aviation, with a view to ensuring a high quality of training;
11. Granting approval to aircraft maintenance, repair, design and manufacturing organizations and their continued oversight;
12. To act as a nodal agency for implementing Annex 9 provisions in India and for coordinating matters relating to facilitation at Indian airports including holding meetings of the National Facilitation Committee;
13. Rendering advice to the Government on matters relating to air transport including bilateral air services agreements, on ICAO matters and generally on all technical matters relating to civil aviation, and to act as an overall regulatory and developmental body for civil aviation in the country;
14. Regulation and oversight of matters related to Air Navigation Services. Coordination at national level for flexi-use of air space by civil and military air traffic agencies and interaction with ICAO for provision of more air routes for civil use through Indian air space;
15. Keeping a check on aircraft noise and engine emissions in accordance with ICAO Annex 16 and collaborating with the environmental authorities in this matter, if required;
16. Promoting indigenous design and manufacture of aircraft and aircraft components by acting as a catalytic agent;

17. Approving training programmes of operators for carriage of dangerous goods, issuing authorizations for carriage of dangerous goods, etc.
18. Safety Oversight of all entities approved/ certified/ licensed under the Aircraft Rules 1937.

Bureau of Civil Aviation Security - BCAS

The Bureau of Civil Aviation Security (BCAS) was initially set up as a Cell in the DGCA in January 1978 on the recommendation of the Pande Committee. The BCAS was reorganized into an independent department under the Ministry of Civil Aviation on 1st April, 1987. The main responsibilities of BCAS include laying down standards and measures with respect to security of civil flights at international and domestic airports in India. BCAS Head quarter is located at "A" Wing, I-III floor, Janpath Bhavan, Janpath, New Delhi-110001. It has got four Regional Offices located at International airports i.e. Delhi, Mumbai, Kolkata and Chennai.

Functions of BCAS:

1. Laying down Aviation Security Standards in accordance with Annex 17 to Chicago Convention of ICAO for airport operators, airlines operators, and their security agencies responsible for implementing AVSEC measures.
2. Monitoring the implementation of security rules and regulations and carrying out survey of security needs.
3. Ensure that the persons implementing security controls are appropriately trained and possess all competencies required to perform their duties
4. Planning and coordination of Aviation security matters.
5. Conducting -

Surprise/Dummy checks to test professional efficiency and alertness of security staff.
Mock exercise to test efficacy of Contingency Plans and operational preparedness of the various agencies.

OPERATIONAL RESULTS:

Particulars	2015-16	2016-17	2017-18
ASKms (Million)	51208.0	54155.0	57722.0
RPKms (Million)	38694.0	41316.0	45970.0

Passenger Load Factor (%)	75.60	76.30	79.60
No. of Revenue Passengers (Million)	18.00	19.10	20.90
Yield Per RPKM	4.05	3.88	3.86

FINANCIAL WORKING RESULTS

Particulars	2016-17	2017-18	2017-18
	(₹ in crore)		
Operating Revenue	19992.33	21827.07	23003.68
Operating Expenses	19887.33	22048.68	24661.77
Operating Profit/(Loss)	105.00	(221.61)	(1658.09)
Total Revenue	20526.12	22197.11	23900.50
Total Expenses	24361.33	26333.25	29125.86
Net Profit/ (Loss) before Tax	(3835.21)	(4136.14)	(5225.36)
& Extraordinary Items			
Exceptional Items	77.32	(2145.39)	(112.39)
Extraordinary Items	(78.88)	-	-
Total Revenue (Including Except./ExtraOrdinary Items	20524.56	20051.72	23788.11
Net Profit/(Loss) Before Tax	(3836.78)	(6281.53)	(5337.75)
Provision for Tax (Incl. FBT)	-	-	-
Comprehensive Income		(171.36)	(10.43)
Net Profit/ (Loss) after Tax	(3836.78)	(6452.89)	(5348.18)
EBIDTA	2413.29	(341.30)	944.50
Cash Loss	(2060.71)	(4625.87)	(3519.59)
EBIDTAR	3587.09	1513.95	3299.56

Risk analysis of major departments of the AIL are as follows:

Sl. No.	Name of the Unit	Risk Assessment
1	Corporate Affairs / Communication and CMD's Office, AIB Mumbai and Delhi	Medium
2	Inflight Services Department	High
3	Cargo Department	Medium
4	Material Management Department	High
5	Operations Dept including Operations Training	High
6	Personnel Dept. including Industrial Relations	High
7	Properties & Facilities Department	Medium
8	Security Department	Medium
9	Finance Department including Internal Audit Department	High
10	Strategy & Planning Department	Medium
11	Medical Department	Medium
12	Flight Safety Department	Medium
13	Vigilance Department	Medium
14	Project Office CAO	Medium
15	Commercial department including Revenue Management	High
16	Information Technology Department	High

3 REVIEWS AND DRAFT PARAS APPROVED DURING LAST THREE YEARS

S.No	2015-16	2016-17	2017-18
1	P.A on Turn Around Plan of Air India (Compliance Report 40 of 2016)	D.P on Short coming in tendering process in renewal of Aviation Insurance resulting in a loss of USD 3,089,959 to Air India Limited	D.P on Irregular payment of Incentive to cabin crew"-AIL.
2	-	-	D.P on Avoidable expenditure of Rs.5.60 crore sue to irregular appointment of retired

			cabin crew on contract basis”
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D ENVIRONMENT MANAGEMENT:

Environment Management System

Environment Management - Impact of Operations and Environment Protection Mechanisms in Air India

Environmental Impacts of Operations - The aviation industry plays a vital role in the global economy and provides economic and social benefits. It is also apparent that global temperatures continue to rise while the aviation industry continues to grow.

- Major environmental challenge of the air transport business is **greenhouse gas emissions from combustion of aviation fuel**. One of the most important environmental factors today is global warming and climate change caused by greenhouse gases. Aircraft engines emit carbon dioxide, oxides of nitrogen, oxides of sulphur, water vapour, hydrocarbons and particulate matter consisting mainly of sulphate from sulphur oxides and soot. These emissions Greenhouse gases alter the chemical composition of the atmosphere in a variety of ways, both directly and indirectly. The environmental issues associated with flight are also correlated with the altitude at which the greenhouse gases are emitted, the higher the attitude the greater damage to the ozone layer.
- Noise produced by the aircraft during various phases of the flight.
- Waste originating from Aircraft Maintenance which may contain residues of hazardous organic solvents and chemicals, heavy metals, carbon fiber waste, paint residues etc.
- Usage of fuel by aircraft leads to depletion of natural reserves.
- Usage of water during various phases of aircraft maintenance and actual flight.

AIL has with the introduction and induction of more modern aircrafts environment friendly aircraft types such as the Boeing Dreamliner B787 and Airbus A320 Neo, has an opportunity to reduce emissions per passenger kilometer flown and thus contributing towards positive environmental impact; comparatively.

Social Impacts of Operations: While air transport has environmental impacts, it also has some adverse social impacts. It causes Nuisance/ annoyance / hearing impairment to the population in areas near the airports because of frequent noise and vibrations generated from the aircraft operations.

However, Air transport also contributes to sustainable development. By facilitating tourism and trade, it generates economic growth, provides jobs, alleviates poverty, and increases revenues from taxes.

- The air transport network facilitates the delivery of emergency and humanitarian aid relief anywhere on earth, and ensures the swift delivery of medical supplies.
- Air transport improves quality of life by broadening people's leisure and cultural experiences. It provides a wide choice of holiday destinations around the world and an affordable means to visit. Air transport may provide the only transportation means in remote areas, thus promoting social inclusion.

Environment protection mechanism in Air India

AIL is the first airline in India to establish an Environment Management System (EMS) Department.

The EMS is responsible for maintaining data and information pertaining to fuel consumption, carbon emissions, energy demand, etc and developing future action plans to reduce the carbon footprint of the Airline and identify and comply with legal and other regulatory obligations. The EMS permits Air India to determine the significance of its environmental aspects and set objectives and targets. It will also provide

framework for monitoring requirements, internal assessments and management review.



The Corporate EMS runs the companywide Fuel Conservation program through a Green Initiatives Steering Committee which sets targets and actions for all departments of AIL and its subsidiaries Air India Express and Alliance Air. AIL has adopted an integrated approach for fuel savings which covers every phase of flight, from flight planning to the flight phase and on the ground which in - turn causes emission reduction and thus reduces the negative environmental impact.

Fuel Efficiency Gap analysis (FEGA) is an ongoing initiative to evaluate ATF

consumption and opportunities for saving by implementing various measures such as:

- Flight Planning System which generates shorter optimized Routes.
- Pilot Techniques and Flight Management
- Reduced Flap setting during Takeoff and Landings
- Idle Reverse on Landing
- Low Noise Low Drag approaches
- Reduced Acceleration Altitude
- Engine Out Taxi In
- Contingency Fuel
- Centre of Gravity and Zero Fuel Weight Error
- Engine Core Wash
- Aircraft Weight Reductions
- APU fuel Savings
- Potable Water

The above mentioned initiatives are implemented and monitored across all departments of AIL for fuel saving which in turn reduces the greenhouse gas emissions into the atmosphere.

Regulatory Framework applicable to AIL for reducing its negative Environmental Impacts

1) Reporting to DGCA-The Corporate EMS compiles and submits Annual Carbon Footprint reports from ATF emissions annually to comply with DGCA requirements on Climate Change Initiatives and Local Air Quality Monitoring in Civil Aviation for all the three AOC's AIL, Alliance Air and Air India Express.

2) Reporting under European Union - Emissions Trading scheme (EU-ETS) - Fuel consumption and associated CO₂ emissions are calculated for all intra European flights. Data for European Flights is compiled and verification audit is carried out by a third-party Verifier. On successful completion of the verification audit the data is submitted to the EU Regulator. Offsetting of the CO₂ emissions is carried out by surrendering an equivalent amount of Carbon Credits.

3) Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) - CORSA aims to address any annual increase in total CO₂ emissions from

international civil aviation above 2020 levels. Under the scheme, Air India will be required to purchase “emissions units” to offset the CO₂ emissions for flights operated to and from CORSIA participating countries from the start of the scheme i.e. 1st January 2021. Air India and Air India Express will have to report CO₂ emissions on all international flights to DGCA on an annual basis from the year 2019 onwards after carrying out a verification audit of fuel consumption data by a verifier listed in ICAO and DGCA’s list of accredited verifiers.

As a part of AIL's vision to be the most environmentally effective international airline in the world:

Green Week was celebrated from 5 - 10 June 2017. The Green Week was based on UNEP theme for World Environment Day 2017 "Connect with Nature". The Green Week was launched on World Environment Day - 5th June 2017 by signing of an Environment Pledge Banner stating AIL's Commitment towards Corporate Social Responsibility and Environment Sustainability, by the CMD. This was followed by the launch of AIL's commitment towards implementation of Environment Management System using ISO 14001:2015.

A tree plantation programme was carried out on 30th and 31st October 2017 and 80 trees of 18 different native species were planted.

World Water Day was celebrated on 22nd March 2018 by conducting awareness campaign for saving water, reduce usage and eliminate wastage of water. AIL also participated in the Earth Hour Programme on 24th March 2018.

AIL has been recognised for its efforts in environment protection and quality management and has been awarded the National Environment Health & Safety Congress Awards 2017.

AIL was also winner for Best Environment, Health & Safety Company of the year 2017. AIL reported Carbon Footprint of 1.00 CO tonnes per thousand RTKM (Revenue Tonne Kilo Metres) for 2017 as compared to 1.01 CO tonnes per thousand RTKM for the year 2016. Air India’s, Fuel efficiency has improved by 1.03% in 2017 as compared to 2016 by utilising Fuel efficient aircraft and implementation of Fuel efficiency measures and better load factors.

AIL was audited by M/s Verifavia, an EU accredited verifier for emissions due to European rights under the European Union Emissions Trading Scheme (EU-ETS) in March 2018. AIL successfully met the audit requirements which covered EMS, Flight Operations, Engineering and Finance Departments, submitted its Emissions Report and surrendered the Carbon credits due to emissions from intra-Europe rights before the deadline of 30th April 2018. AIL is now fully compliant with EU-ETS Emissions Regulations.

CHAPTER VI
AUDIT OF AUTHORITIES

PART-I

NATIONAL HIGHWAYS AUTHORITY OF INDIA (NHAI)

O/o PDCA/MAB - I, New Delhi is Principal Auditor of National Highways Authority of India (NHAI) and O/o PDCA/MAB - II, Mumbai is sub-auditor of NHAI. This Office has three Regional offices (ROs) viz.RO, Nagpur, RO, Gandhinagar and RO, Mumbai and Project Implementation Units (PIUs) under its audit jurisdiction. Phase - II accounts audit of four PIUs are carried out by this office on risk assessment basis.

A INTRODUCTION:

National Highways Authority of India, an autonomous body under the Ministry of Road Transport & Highways (MoRTH), GoI, established under Section 3 of the National Highways Authority of India Act, 1988. Head office of National Highways Authority of India situated at, New Delhi.

NHAI has been entrusted with the responsibility of the National Highways Development Project, which alongwith other minor projects, has vested in it 50329 kms of National Highways for development, maintenance and management. NHAI's objective is to ensure that all contract awards and procurements conform to the best industry practices with regard to transparency of process, adoption of bid criteria to ensure healthy competition in award of contracts. Implementation of projects conform to best quality requirements and the highway system is maintained to ensure best user comfort and convenience.

Prior to creation of NHAI, the Ministry of Road Transport & Highways (the erstwhile Ministry of Surface Transport) was developing the highways through the PWDs of State Governments. The Central Government was retaining the activities pertaining to planning, approval of design and estimates, monitoring, etc., whereas the execution of projects was the responsibility of the State PWDs. It was working as an Agency System, where agency charges were paid to States for the works executed on the national highways.

As the Central Government had no direct administrative control over the executing agency, it resulted in anomalous situations, and Central Government had to defend State Governments in

various forums, including Parliament; though having no role to play in fixation and operation of even major contracts, arbitration cases, payment of compensation to contractors, etc., resulting in direct financial commitment of Central funds. In this back drop, NHAI was created as a Statutory body through the NHAI Act 1988 by an Act of Parliament as an alternative for the Centre to take over the development and maintenance of the National Highway system. NHAI was operationalized in 1995 for development and maintenance of National Highways entrusted to it by the Government of India through Ministry of Road Transport & Highways. Subsidiaries : SPVs wherein shareholding of more than 50% is held by NHAI, namely, (i) Ahmedabad-Vadodara Expressway Company Limited, (ii) Mormugao Port Road Company Limited, (iii) Vishakhapatnam Port Road Company Limited, (iv) Calcutta-Haldia Port Road Company Limited, (v) Cochin Port Road Company Limited, (vi) Tuticorin Port Road Company Limited, (vii) Paradip Port Road Company Limited, (viii) New Mangalore Port Road Company Limited, (ix) Moradabad Toll Road Company Limited, all incorporated as Public Limited Companies under the Companies Act, 1956.

1 VISION:

To meet the Nation's need for the provision and maintenance of National Highways network to global standards and to meet the user's expectations in the most time bound and cost effective manner, within the strategic policy framework set up by Government of India and thus promote economic wellbeing and quality of life of the people.

2 MISSION:

- To develop, maintain and manage National Highways vested in it by the Central Government
- To regulate and control the plying of vehicles on National Highways for its proper management.
- To develop and provide Consultancy and Construction Services in India and abroad and carry out research activities in relation to the development, maintenance and management of highways or any other facilities threat.
- To advise the Central Government on matters relating to highways

- To assist on such terms and conditions as may be mutually agreed upon, any State Government in the formulation and implementation of schemes for highway development.

3 ROLE, OBJECTIVES AND FUNCTIONS:

The role of developing, maintaining and managing National Highways in India has been entrusted to the National Highways Authority of India (NHAI) which was established in 1988 by an Act of Parliament, namely NHAI Act 1988, as a body corporate to discharge its functions on business principles. However, NHAI began its operations only in 1995 with the appointment of a full-time Chairman and Members. NHAI is mandated to implement the National Highways Development Programme (NHDP) which is the amongst the world's largest road development programme. It has been entrusted with the National Highways Development Project, along with other projects (Special Accelerated Road Development Plan -North East & Special Projects in Madhya Pradesh, Maharashtra, Tamil Nadu and West Bengal).

Primary responsibility for timely and efficient execution of NHAI projects under PPP mode ensuring requisite quality of work rests with the Concessionaires, independent engineers (IE), safety consultants etc. NHAI is responsible for land acquisition and follow up of fulfilment of conditions precedent by it (NHAI) as well as by the Concessionaire. Examination of monthly progress reports (MPRs) submitted by the Concession IE/Safety Consultant, initiating action in case of breach, if any, of CA by the concessionaire/IE, etc.

The following functions are entrusted to NHAI under the National Highways Authority of India Act, 1988:

- a) Subject to the rules made by the Central Government in this behalf, it shall be the function of the Authority to develop, maintain and manage the national highways and any other highways vested in, or entrusted to it by the Government;
- b) Survey, develop, maintain and manage highways vested in, or entrusted to it;
- c) Construct offices or workshops and establish and maintain hotels, motels, restaurants and rest-rooms at or near the highways vested in, or entrusted to it;
- d) Construct residential buildings and townships for its Employees;
- e) Regulate and control the plying of vehicles on the highways vested in or entrusted to it for the proper management thereof;

- f) Develop and provide consultancy and construction services in India and abroad and carry on research activities in relation to the development, maintenance and management of highways or any facilities thereat;
- g) Provide such facilities and amenities for the users of the highways vested in, or entrusted to it as are in the opinion the Authority, necessary for the smooth flow of traffic on such highways;
- h) Form one or more companies under the Companies Act, 1956 to further the efficient discharge of the functions imposed on it by this Act;
- i) Engage, or entrust any of its functions to, any corporation or body corporate owned or controlled by the Government;
- j) Advise the Central Government on matters relating to highways;
- k) Assist, on such terms and conditions as may be mutually agreed upon, any State Government in the formulation and implementation of schemes for highway development;
- l) Collect fees on behalf of the Central Government for services or benefits rendered under section 7 of the National Highways Act, 1956, as amended from time to time, and such other fees on behalf of the State Governments on such terms and conditions as may be specified by such State Governments; and
- m) Take all such steps as may be necessary or convenient for, or may be incidental to, the exercise of any power or the discharge of any function conferred or imposed on it by this Act.

As per the NHAI Act, 1988, NHAI is responsible for project management as well as subsequent corridor management for stretches of national highways assigned to it by the Government of India (GoI). The project management function covers activities related to construction of stretches (either new alignments or up-gradation along existing alignments). It includes break down of programme into design/construction packages and their prioritization, project preparation, procurement of design, construction and supervision services, project monitoring and decisions on incorporation of Private Sector Participation (PSP) in programme implementation. The corridor management function covers various activities after completion of construction on specific stretches, including routine/periodic maintenance, enforcement of regulations, and collection of user charges, access control, and provision of road side amenities, encroachment prevention, and standardization of systems across corridors.

4 ORGANISATIONAL SET UP:

NHAI has a three-tier structure. The Headquarters (HQ), the Regional Offices (ROs) and the Project Implementation Units (PIUs). The PIUs, headed by Project Directors, are responsible

for implementation of projects assigned to them and ROs, headed by a CGM level officer, have been set-up in various parts of the Country for decentralizing and strengthening the field level operations in NHAI. The HQ is responsible for overall supervision of the works assigned to NHAI.

As per the amendment to the NHAI Act of 1988 issued on 10th September 2013 the Authority shall consist of

- (a) a Chairman;
- (b) not more than six full-time members; and
- (c) not more than six part-time members,

to be appointed by the Central Government by notification in the Official Gazette:

Provided that the Central Government shall, while appointing the part-time members, ensure that at least two of them are non-Government professionals having knowledge or experience in financial management, transportation planning or any other relevant discipline.

(a) ORGANOGRAM



5 CAPITAL STRUCTURE:

NHAI is an autonomous body under MoRTH. It is established and governed by the NHAI Act. NHAI is not a company in terms of the Companies Act and accordingly NHAI does not have a share capital.

Financing National Highway Projects:

Financing for development of National Highways in India is from the budgetary resources of the Government of India. In order to augment the available resources, loans have also been raised from multilateral agencies like World Bank, Asian Development Bank (ADB) and Japan Bank of International Cooperation (JBIC). NHAI has earlier received loans directly from

multilateral agencies (highway project). These loans are expected to be repaid through the toll income from the project.

Funding for road projects:

NHDP projects are financed primarily from the following sources:

Cess levied on petrol and high speed diesel (Central Road Fund),

Funds received for externally aided projects,

Additional budgetary support,

Market borrowings and

Plough back of revenue includes toll collection, shared revenue, negative grant etc. collected by NHAI and deposited into the Consolidated Fund of India against which an equivalent amount is to be released by Government of India (GoI) to NHAI for investing in its projects.

Presently, the development and maintenance of National Highways is financed by following modes:

1. Government's general budgetary sources
2. Dedicated accruals under the Central Road Fund (by levy of cess on fuel)
3. Lending by international institutions:
 - World Bank
 - ADB
 - JBIC
4. Private financing under PPP frameworks
 - Build Operate and Transfer/Design Build Finance Operate and Transfer (DBFOT) - Investment by private firm and return through levy and retention of user fee
 - Build Operate and Transfer (Annuity) - BOT (Annuity) - Investment by private firm and return through semi-annual payments from NHAI as per bid.
 - Special Purpose Vehicle - SPV (with equity participation by NHAI)
 - Market Borrowings

The VGF scheme provides financial support in the form of capital grant for PPP projects in various infrastructure sectors. VGF Scheme is intended to support projects which are commercially unviable but have high economic benefit. Capital grant for all infrastructure projects under the VGF scheme is restricted to a maximum of 40% of the project cost. Grant provided by NHAI for highway projects under the BOT route may be financed through the VGF route. VGF funding will not be available over and above NHAI's grant for projects.

- NHAI has a provision for providing grant upto 40% of the project cost to make projects commercially viable. However, the quantum of grant is decided on a case to case basis and typically constitutes the bid parameter in BOT projects generally not viable based on toll revenues alone. The disbursement of such grant is subject to provisions of the project concession agreements.

6 BUDGET AND PLANNING:

In carrying out its role, NHAI is dependent on the outputs from the strategic planning and policy formulation function carried out by the Ministry in consultation with other Government bodies, as required.

Broadly, MoRTH provides NHAI with inputs on the following:

- Budgeting for NH development as part of overall Government budget, thereby setting the broad financial parameters for large programme of NH development, such as the Golden Quadrilateral (GQ) and the North-South and East-West corridors, including access to cess, international funding, tolls, etc.
- Developing policy with regard to models for PSP in NHs, including fiscal benefits and capital market access
- Declaration of road stretches as NHs and their subsequent entrustment to NHAI
- Inter-modal linkages as part of any integrated transport policy of the Government of India.
- Apart from the MoRTH, there are a number of other key stakeholders with whom NHAI interacts regularly to fulfill the requirements set out by its role. These stakeholders include the International Funding Institutions (IFIs) like the World Bank and the Asian Development Bank (ADB), State Government & their agencies, users of national highways and private sector contractors and other service providers."

B ACCOUNTING SYSTEM

NHAI's accounts are prepared neither fully on cash basis nor on accrual basis and as such its financial statements do not completely adhere to the Generally Accepted Accounting Principles

(GAAP) and the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI). NHAI has certain characteristics of a government department as also that of a Public Sector Enterprise as is apparent from provisions of the NHAI Act, composition of its Board of Directors, delegation of powers, rules of business, etc. As per section 10 of the NHAI Act, the NHAI is to act on business principle

1 MANPOWER ANALYSIS

NHAI has adopted a business model that relies on outsourcing of a number of activities including design, construction, supervision, operation and maintenance of NH, rather than undertaking all such activities through its own employees.

NHAI adopts multi-pronged approach for recruitment of personnel.

The following modes of recruitment have been adopted for recruitment of personnel: -

(i) Deputation (ii)Contract (iii)Direct Recruitment (iv)Absorption

NHAI is a lean officer-oriented organization, which work on the business model of outsourcing of specific tasks related to design, construction and supervision of works and subsequent management of completed corridors.

The model has the following significant advantages: -

It will keep the NHAI relatively lean.

It harnesses private sector efficiencies, resources and expertise.

It provides flexibility in formulation and execution of works.

It enables speedy execution of works. \

Most of the officers are on deputation and few are on regular strength. Majority of the support staff is on contractual basis. The service conditions of the officers and employees are governed by the various Regulations approved by the Authority from time to time. In order to attract the officers and employees, NHAI has formulated various perquisites and facilities.

2 COMPUTERIZATION

ERP system by e-PFMS (Project Financial Management System) is implemented by NHAI. A system for monitoring PPP projects has already been developed and implemented with PPP projects being currently monitored through this software. NHAI has switched to e-

procurement and e-tendering for all types of projects including BOT since July, 2011. The e-procurement/e-tendering system is at no cost to NHAI and the bidder pays a nominal fee for using the e-tendering portal.

NHAI is striving for advancement in information technology in various aspects of highway development and management. In the past, NHAI had used technologies and knowledge management tools to a limited extent. But this is changing fast now, with a significant thrust on technology envisaged to be one of the important strategies for NHAI to successfully manage its systems. Therefore, a comprehensive strengthening of the IT system is proposed to be carried out. A system for monitoring PPP projects has already been developed and implemented.

To facilitate dissemination of information on all projects executed and managed by NHAI, Project specific websites, one for each Project has been created. These project specific web-sites can be accessed by the public (<http://www.nhai.org.in>) for obtaining detailed information on each project including key features, project progress, copies of project agreements, correspondence exchanged, emergency contact numbers, accident reporting, applicable User Fee rates along with a provision for posting of suggestions.

Project Monitoring Information System (PMIS) has been developed in-house in National Highways Authority of India (NHAI) is one of the finest MIS applications in the highways industry. With the help of this tool, more than 3000 projects of highways construction works, which include pre-construction stages, under construction stages and post-construction (O&M) stages in very elaborative manner. PMIS helps the Authority in effective monitoring of activities for timely completion.

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In order to improve transparency and accountability, NHAI has switched to e-procurement and e-tendering for all types of projects including BOT since July, 2011. NHAI is in the process of migrating to Central Public Procurement Portal (CPPP) developed by National Informatics Centre (NIC) for all tendering process of NHAI w.e.f. 01.04.2017.

Being developed to ensure 24X7 real-time Administrative Surveillance. The Centre will enable on-line visual monitoring of traffic congestion at each Toll Plaza. It shall also help NHAI develop Incident Detection System and facilitate immediate mitigation of traffic congestion at the affected toll plaza. The solution shall also enable video conferencing at toll plazas and allow Multi-party Video conferencing between Control Centre(s) at NHAI, HQ, Regional Offices, and Toll Plazas.

NHAI is also working on modern techniques for survey and is preparing a digital inventory of various assets. The study shall develop a web-based GIS network of NHAI road network database assets and related inventory. NHAI has already completed pilot data collection of 3000+ kilometers and is in the process of developing a RAMS cell to institutionalize the techniques. The techniques will help NHAI enhance its monitoring and maintenance capabilities, allow for proactive road maintenance, and reduce the overall maintenance costs.

NHAI has launched a mobile application for tag purchase and top-up of FASTags, and also initiated a public awareness drive for increasing the FASTag sales. In addition to the efforts, NHAI has also tied up with CSC for offline Tag sales. The above initiatives have helped increase ETC penetration wrt toll revenue increase from 4% to 18% in last eight months, while the number of tags has issued increased by eight times (Current figure stands at 7.50 lakhs), with a corresponding increase in revenue since December. The sales are expected to

reach new heights with Government notification making it mandatory for all vehicles to have FASTags from 1 December 2017.

To support the surge in sales, NHAI is also working towards converting all lanes as ETC enabled lanes. Further, all Toll plazas are being upgraded to ensure one dedicated lane at all Plazas. NHAI is also in the process of launching Integrated Toll Management System (ITMS) being developed for quick & real-time settlement of transactions at Toll Plazas; RFQ for same is under evaluation while the RFP is being issued. NHAI is also exploring other Technologies of e-Tolling, BHIM, Prepaid Mobility card, Distance based GPS Tolling, etc. to further enhance the customer experience at the Toll Plazas.

New network architecture has been under formulated and is under execution at NHAI Headquarter, considering the next stage of services to be offered at Toll plaza and Regional offices which will be connected to the HQ with video, voice and surveillance traffic.

Futuristic up gradation of the network is planned with following perspectives.

- (a) Network at Core, Distribution and Access Layer.
- (b) Servers and Storage.
- (c) Security at the perimeter like firewall and IPS.
- (d) Network Device security.

C INTERNAL AUDIT

Internal Audit of all Units exists, comprising NHAI Headquarters, Regional Offices and Project Implementation Units, is outsourced to the firms of Chartered Accountants.

1 ACTS RULES AND OTHER DOCUMENTS APPLICABLE

The following Acts, Rules and Manuals, are applicable:

- NHAI Manual 2006
- NHAI Act 1988
- Arbitration Act, 1996
- National Highways Act, 1956
- National highways Rules 1957
- National Highways Authority of India Act 1988
- National Highways Authority of India amendment Act 2013

- National Highways Tribunal Rules
- Central Fund Act 2000 Rules
- Control of National Highways (Land and Traffic) Act 2002
- Various Guidelines and Circulars issued by MoRTH.

2 DETAILS OF AUDITABLE UNITS AND RISK RATING

SI No	Name of the auditable units	Total Points as per Risk Assessment	SI No	Name of the auditable units	Total Points as per Risk Assessment
1	Pune	4	12	Dhule	5
2	Rajkot	4	13	Goa	5
3	Nagpur	5	14	Veraval/ Somnath	6
4	Nashik	6	15	Yavatmal	5
5	Solapur	6	16	Nanded	4
6	Ahmedabad	6	17	Bharuch	5
7	Gandhidham	4	18	Nagpur-2 (17.01.2017)	4
8	Amravati	3	19	Wasim (17.01.2017)	4
9	Panvel	4	20	Kolhapur (27.07.2017)	4
10	Surat	5	21	Regional office- Nagpur	4
11	Aurangabad	5	22	Regional office- Gandhinagar	4
			23	Regional office - Mumbai	3

The selection of PIUs for audit is done as per criteria given below:

Selection of Compliance Audit Units is carried out based on the risk assessment done as per HQ letter No.411/CA-IV/70-2003/Vol-III dated: 03-09-2008.

1. Project Implementation Units with expenditure of Rs. 800 crore and above considered High Risk Units and considered as Category A are selected every year for audit.
2. Project Implementation Units with expenditure of from Rs. 200 crore to Rs. 799 crore considered Medium Risk Units and considered as Category Bare selected once in a two years for audit

3. Project Implementation Units with expenditure below Rs. 200 crores are considered Low Risk Units and considered as Category Care selected once in a three years for audit.

Audit criteria are derived from the following:

- Adherence to guidelines/procedures set forth for identifying private sector partners including review of Detailed Project Report (DPR)/Feasibility Reports, Sample surveys/Statistical Analysis Reports etc.
- Review of records of various phases of NHDP, selection of stretches under respective phases, appraisal of projects at various levels viz. NHAI/MoRTH, PPPAC, EoGM/GOM/CCEA/CCI etc.
- Terms and conditions of Model concession agreement, State Support Agreement, Escrow Agreement, Substitution Agreement, Agreement with Independent Engineer and Consultant.
- Traffic and Revenue assessment and projections.
- Departmental, technical and financial estimates prepared as per DPRs
- Project Management Control System prepared by the Independent Consultant (IC) for monitoring implementation, operation and maintenance of the project.
- System of evaluation of bids
- Work Plans of NHDP and Budget Provision for release of funds to MoRTH/NHAI
- Operation and Maintenance (O&M) Manual for project implementation.
- Financial Management System of NHAI.

D OBJECTIVES OF THE AUDIT ARE TO ASSESS WHETHER:

- Project identification / prioritization was done in a transparent/effective manner; whether defined criteria existed in this regard based on factors like traffic census, connectivity to important places/towns/commercial centres, strategic importance, harmonious development of different parts of the country and so on.
- Financial Management of funds was sound, mobilisation of resources was efficient and the available funds were utilised effectively and economy was kept in view while borrowing funds.

- Projections made in DPR/ Feasibility Report were sound and borne out by subsequent events; DPR/ Feasibility Report were prepared considering all the present as well as future aspects of the project and the TPC was arrived prudently.
- Bid evaluation procedures were well established and projects awarded to concessionaires according to competitive procedures, equitably and in public interest. Criteria for determining concession period were based on a sound financial model and consistent for all projects with no avoidable extra burden on users.
- Revenue management system in toll collection was effective; share of Toll revenue whenever due to GoI was being regularly received and internal control of NHAI was efficient to check short realisation of revenue, if any.
- Suitable mechanism for monitoring of projects was established at MoRTH and NHAI during execution and O&M stage; the output was consistent with the goals set under NHDP and value for money was realised from the projects. Projects were completed within estimated cost, desired timeframe and in cases of any delay/default; appropriate steps had been considered/taken as per MCA/CA.

E RECORDS TO BE SEEN DURING AUDIT:

Generally, following records are seen during audit:

- 1) Concession Agreement between NHAI and Concessionaire
- 2) Consultant Agreement between NHAI and Independent Engineer.
- 3) State Support Agreement between NHAI and State government.
- 4) Escrow Agreement between NHAI, Concessionaire and Escrow Bank.
- 5) Monthly Progress Report of Concessionaire and Independent Engineer.
- 6) Overview of Escrow Bank Account.
- 7) Records related land acquisition i.e. awards from CALA (Competent Authority of Land Acquisition) and payments to Land losers.
- 8) Records related to utility shifting work such as estimates by concerned agencies, its approval, execution and payments.
- 9) Records related to positive and negative change of scope.
- 10) Correspondence of PIU with CALA, NHAI RO, Headquarters, Independent Engineer and Concessionaire.
- 11) Records related to Viability Gap Funding.

F REVIEWS AND DRAFT PARAS APPROVED DURING LAST THREE YEARS:

NIL

G ENVIRONMENT MANAGEMENT:

(a) GREEN INITIATIVES:

Electric, Ethanol and Methanol Vehicles exempted from Permit

Keeping in view the need for promoting electric mobility and alternate fuels, the Ministry, notification issued on October 18, 2018, has exempted Battery Operated Vehicles, as well vehicles driven on Methanol fuel or Ethanol fuel, from the requirement of permit for passengers or goods.

Advisory on Linking of PUC data (emission related data) with the VAHAN database

A system has been developed and tested by this Ministry for linking of Pollution Under Control (PUC) data with the VAHAN database. An advisory dated October 1, 2018 has been issued to all the States by the Ministry wherein all the PUC vendors have been directed to comply with the guidelines and facilitate electronic uploading of emissions test data to VAHAN database.

Notification regarding Registration Mark of Battery Operated Vehicles

To give a distinct identity to the electric vehicles, it has been decided that the registration mark will be exhibited on a number plate with Green background. A notification to this effect was issued on 7th August, 2018.

M 15 (15%) Methanol blending with Gasoline

The Ministry issued a notification regarding the blending of Gasoline with methanol in order to reduce vehicle exhaust emissions and also to reduce the import burden on account of crude petroleum from which gasoline is produced. The Hon'ble Prime Minister had announced an ambitious target of reducing 10% import dependence of oil and gas by 2022 from 2014-15 levels. Methanol can be used as an alternative transportation fuel thereby reducing Import dependence to some extent.

Requirement of PUC Certificate for vehicle insurance/ renewal of insurance

The Ministry has requested IRDA and the MDs / Chairpersons of all general insurance companies on to ensure that no third-party insurance policy is issued or renewed without ascertaining the availability of a valid PUC. This has been done following orders of the Supreme Court of India.

Emission Standards for Construction Equipment Vehicles and Tractors

The Ministry has notified emission standards for Construction Equipment Vehicles and Tractors. These standards would be implemented w.e.f. 1st October, 2020 (Trem IV) and from 1st April, 2024 [Bharat Stage (CEV/Trem)-V]. This would help in ensuring environment friendly construction / mining activities.

Quadricycle included as Non-Transport Vehicles

The Ministry notified the insertion of the item 'Quadricycle' as a 'non-transport' vehicle under the Motor Vehicles Act 1988. A Quadricycle is a vehicle of the size of a 3-wheeler but with 4tyres and fully covered like a car. It has an engine like that of a 3-wheeler. This makes it a cheap and safe mode of transport for last mile connectivity. Quadricycle were only allowed for transport usage under the Act, but now has been made usable for non-transport also.

PART-II

AIRPORT AUTHORITY OF INDIA (AAI)

MINISTRY OF CIVIL AVIATION (MOCA)

C&AG is the sole auditor of AAI to discharge this statutory obligation entrusted on C&AG, audit mandate of AAI is assigned to the office of the PDCA/MAB-I, New Delhi as the Principal Auditor and MAB-II, Mumbai office is the sub-auditor for Airports under Western Region and the audit of Passenger Service Fee (Security Component) (PSF (SC)) Escrow Account.

A Introduction

Airports Authority of India (AAI) was constituted by an Act of Parliament and came into being on 1st April 1995 by merging erstwhile National Airports Authority and International Airports Authority of India. The merger brought into existence a single Organization entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure both on the ground and air space in the country. This is under the administrative control of Ministry of Civil Aviation.

AAI manages a total of 125 Airports, which include 11 International Airports, 08 Customs Airports, 81 Domestic Airports and 25 Civil Enclaves at Defence Airfields. AAI also provides Air Traffic Management Services (ATMS) over entire Indian Air Space and adjoining oceanic areas with ground installations at all Airports and 25 other locations to ensure safety of Aircraft operations. AAI provides air navigation services over 2.8 million square nautical miles of air space. For administrative convenience, AAI has been divided into four Regions and each Region is headed by a Regional Director. Western Region of AAI comprises 25 operations, 7 non-operation Airports and 3 Civil Enclaves.

AAI has entered into a Joint Venture at Mumbai, Delhi, Hyderabad, Bangalore and Nagpur Airports to upgrade these Airports and emulate the world standards.

1 Mission:

To be the foundation of an enduring Indian aviation network, providing high quality safe and customer oriented airport and air navigation services thereby acting as a catalyst for economic growth in the areas we serve.

2 Vision:

AAI's vision till 2026 is to be the principal aviation services provider in the Country.

AAI shall

Adopt and facilitate the use of contemporary air navigation services;

Upgrade and develop airport infrastructure;

Support improving air connectivity at unserved and underserved airports

Have a restructured organization;

Focus on profitable operation at major airport through continuing efforts on cost reduction and enhancing non aeronautical revenue

3 OBJECTIVES:

1. Augmentation of capacities of Airports and Air Traffic Services to meet aircraft, passenger and cargo traffic needs
2. To generate adequate internal resources for financing expansion and modernization plans
3. Improvement of service standards at airports to match customers' expectations
4. Provision of safe air and ground operations at airports through use of latest technology, equipment and practices
5. To Create business opportunities and infrastructure at airports to increase non-aeronautical revenue
6. To improve operational efficiency.

4 Activities of Airports Authority of India

- Control and management of the Indian air space (excluding special user air space) extending beyond the territorial limits of the country as accepted by ICAO.
- Provision of Communication, Navigational and Surveillance Aids

- Expansion and strengthening of operational areas viz. Runways, Aprons, Taxiways, etc. and provision of ground based landing and movement control aids for aircrafts and vehicular traffic in operational area.
- Design, development operational and maintenance of passenger terminals.
- Development and management of cargo terminals at international and domestic airports.
- Provision of passenger facilities and information system in the passenger terminal.
- Provide air safety services, search and rescue facilities in co-ordination with other agencies.
- Establishing schools or institutions or centres for the training of its employees.
- Construct residential building for its employees.
- Establish and maintain hotels, restaurant and rest rooms at or near airports.
- Establish warehouse and cargo complexes at the airports for storage of processing of goods.
- Arrange for postal, money exchange, insurance and telephone facilities for the use of passengers and other persons at the airports and civil enclaves.
- Make appropriate arrangements for watch and ward at the airports and civil enclaves.
- Regulate and control plying of vehicles, entry and exit of passengers and visitors with due regards to the security and protocol functions of the government of India.
- Develop and provide consultancy, construction or management services and undertake operations in India and abroad in relation to airports, air navigation services, ground aids and safety services or any facilities there at.
- Establish and manage heliports airstrips.

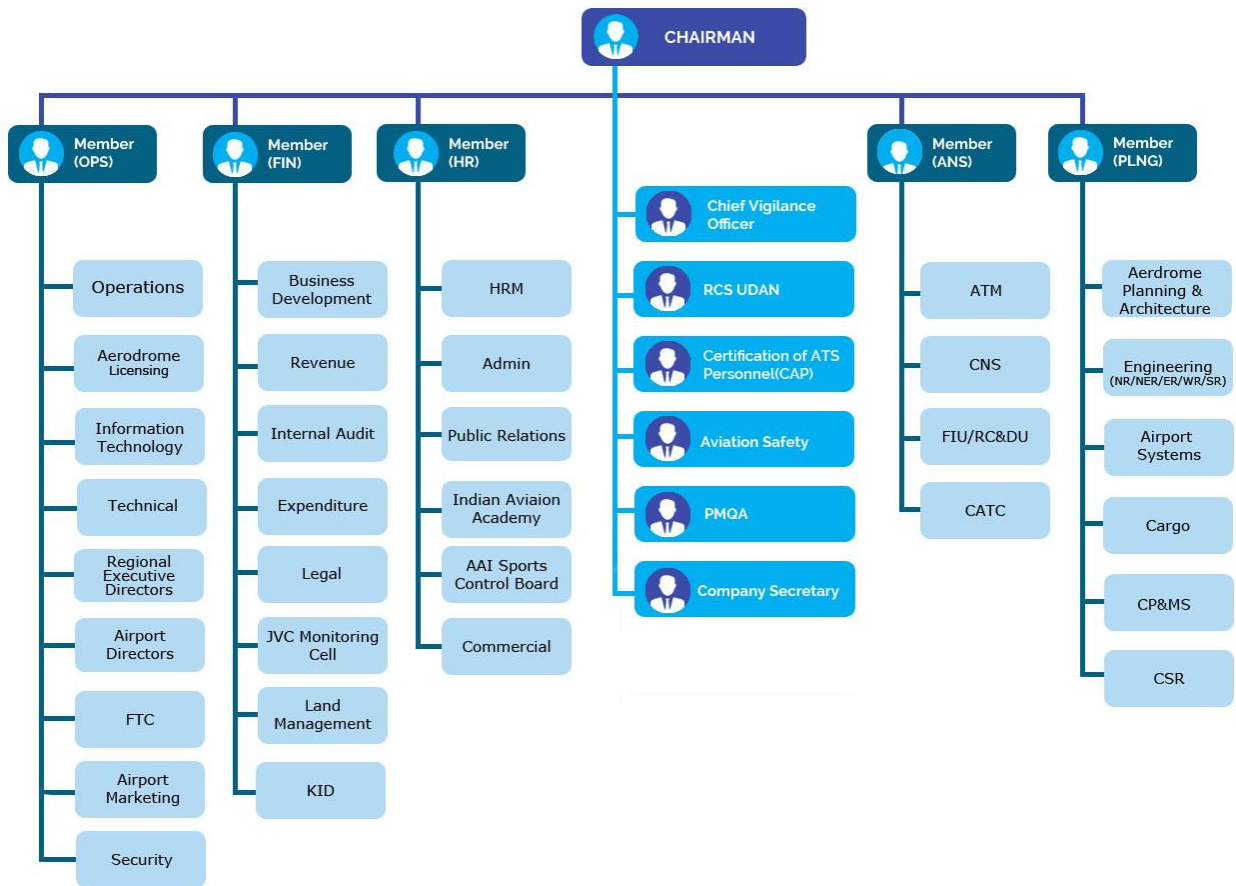
(a) SUBSIDIARIES / JVS / ASSOCIATES

As on March 31, 2018, the following are the subsidiaries / JVs / Associate Company of AAI: -

1. Chandigarh International Airport Limited (CHIAL)- Subsidiary
2. AAI Cargo Logistics & Allied Services Company Ltd. (AAICLAS) Wholly owned Subsidiary
3. Delhi International Airport Limited (DIAL)-JV

4. Mumbai International Airport Limited (MIAL)-JV
5. GMR Hyderabad International Airport Limited (GHIAL)
6. Bangalore International Airport Limited (BIAL)
7. National Flying Training Institute Private Limited, Gondia
8. MIHAN India Limited, Nagpur
9. Kannur International Airport Limited

5 Organizational structure of the Airport Authority of India:



6 CAPITAL STRUCTURE OF AAI:

(₹. In crores)

Particulars	As on 31 st March 2016	As on 31 st March 2017	As on 31 st March 2018
Government capital	656.56	656.56	656.56
Reserves & surplus	12381.25	14372.10	14170.89
Grants	32.70	26.72	99.17
Loans	545.21	39.78	37.43
Net worth	13037.81	15028.66	14827.45
Capital Employed	10539.71	11282.38	10651.95
Working Capital	2958.02	3602.61	2894.05

B ACCOUNTING SYSTEM:

Sources of revenue that accrue to AAI can be classified into traffic and non-traffic revenue.

The sources of traffic revenue are: -Route Navigational Facility Charges (RNFC), Terminal Navigational Landing Charges (TNLC), landing charges, parking and housing charges, Extension of Watch Hour Charges (EWH), Passenger Service Fee (PSF) and X-Ray Baggage charges. The tariff rates for traffic revenue (i.e. charges for landing, housing or parking of aircraft or for any other services or facility) are fixed by the Authority and the rates are approved by the Ministry of civil Aviation.

The major sources of Non-Traffic Revenue are: - Allotment of land for various utilities, viz, construction of hotels, hangars, restaurants, petrol pumps, staff quarters, etc. Allotment of space for restaurants, snack-bars, lounges, check-in counters, operations of customs department and Immigration department, other concessionaires etc, Advertisement Rights Contract, Car Parking Contract, Airport Entry Tickets Contract, Electricity, water and telephone charges etc. In respect of non- traffic revenue rates are fixed by the committee consisting of RED,

Executive Engineer (civil) and officer-in charge of the Aerodrome, Alliance Air, Air Taxi Operators, scheduled foreign Airlines and Non Scheduled Operators.

Traffic Revenue comprises of the following:

Route Navigation Facilities Charges-This is charged for navigating the aircraft to its destination from the departed airport. Route navigation is also provided to all overflying aircraft in the Indian airspace. Basically, the charges are charged on weight (All Up Weight) of the aircraft and the distance flown. ATC Radar Controllers provide route navigation.

Terminal Navigation Landing Charges- This is charged for guiding the aircraft up to the point of touch down. TNLC is applicable at International airports and civil enclaves. Airports which are owned by Defence are categorised as civil enclaves. Generally, ATC Tower controller provides terminal navigation of the aircraft.

Landing charges- This is charged from the point of touchdown to its ultimate parking in the bay. Apron control guides the aircraft from the point of touch down to its ultimate parking in the bay.

Parking charges- This is charged for permitting the aircraft to be parked and a half hour in the aprons.

Housing charges- This is charged for permitting the aircraft to be parked inside the hanger owned by AAI.

Passenger service fees- this is charged for the facilities provided in the terminal as well as for the security arrangements at the airports. The same is collected from all embarking passengers at specified rate from time to time. Bills for PSF are to be raised based on the passenger manifest submitted by the Airlines.

User development fee- UDF is charged to cover any deficit in revenues so as to ensure fair return on investment. Bills for UDF are to be raised based on the passenger manifest submitted by the Airlines

Revenue sharing mechanism by the private operator of Chatrapathi Shivaji International Airport (CSIA) with AAI

Airport Authority of India (AAI) has leased Chatrapati Shivaji International (CSI) Airport, to Mumbai International Airport Private Limited (MIAL) as per lease deed dated 26-04-2006. MIAL is a joint venture company (JVC) consisting of private parties as members of GVK - SA consortium. AAI along with its nominees holds 26 per cent of the shares in MIAL. An agreement for the operation, management and development (OMDA) of CSI Airport was entered between AAI and MIAL on 04th April 2006. As per the terms and conditions of OMDA and Lease Agreement, MIAL is the operator of the airport and is bound by the various agreements entered into between AAI and MIAL. GVK - SA consortium being the private participant in MIAL have entered into various agreements amongst their shareholders etc. for the working of their consortium. The actual handing over of CSI Airport was on 00.00 hrs of 2nd May 2006. The JVC Co-ordination had been formed to monitor implementation of the operation, management and development (OMDA) entered between AAI and MIAL i.e. the private operator of CSI Airport, Mumbai.

The Airport Authority of India (AAI) by way of an Operation, Management and Development Agreement (OMDA) dated 4 April 2006 with MIAL granted to the JVC, the exclusive right and authority to undertake the functions of operation, maintenance, development, design, construction, upgradation, modernization, finance and management of the Mumbai Airport for thirty years. The sole bidding criterion for financial bid for selection of the JVC partner was the revenue share of JV Company with AAI. GVK led consortium was the highest bidder offering 38.70 per cent of gross revenue to AAI.

Charges levied by AAI and MIAL:

The charges levied by AAI are under two broad heads viz., Air Traffic Services (ATS) and Airport Services (Aeronautical & Non-Aeronautical). After the establishment of Airports Economic Regulatory Authority of India (AERA), the airports under AAI have been classified as Major Airports and Non-Major Airports. The tariff for Aeronautical Services at major Airports is fixed and regulated by AERA and for all other airports, Ministry of Civil Aviation (MoCA) functions as the regulator.

Air Traffic Services are handled by AAI at Mumbai Airport. Therefore, the Route Navigation Facility Charges (RNFC), Terminal Navigation & Landing Charges (TNLC) which are classified under Aviation Navigation Services (ANS) are collected and retained by AAI. Whereas, Landing, Parking/Housing (both are shared with AAI), PSF and User Development Fee (collected for specific purpose from the passengers by airlines) are collected by MIAL. Aeronautical Services and Non-Aeronautical Services separately disclosed in OMDA and services for which charges being levied by MIAL and shared @ 38.7 per cent with AAI, as certified by Independent Auditors

Passenger Service Fees (PSF) Escrow Account:

As per the respective Operation Management and Development Agreement (OMDA) and State Support Agreements (SSAs), the private operators/Joint Venture Companies are responsible for procuring, maintaining, at its own cost security systems and equipment's (except arms and ammunitions) as required by GoI/Bureau of Civil Aviation Security (BCAS) or its designated nominee(s)/representative(s) from time to time. MoCA issued instructions from time to time for collection and utilization of PSF by airport operators. Broadly, these instructions were:

- (i) Passenger Service Fees (PSF) at airports would be collected from various airlines by the respective airport operator, which could be either AAI or any private operator.
- (ii) A separate Escrow Account would be operated by the airport operator in fiduciary capacity
- (iii) In all Rs. 130 were collected as PSF (SC) per passenger by the operator to be deposited in the escrow account, within 15 days of the next calendar month of collection, for meeting the expenses relating to the CISF
- (iv) PSF (SC) collected at an airport operated by MIAL or a private operator would be utilised at the airport concerned only to meet the security related expenses at that airport
- (v) The escrow account is subject to audit by Comptroller and Auditor General of India every year.

1 MANPOWER ANALYSIS:

The manpower strength of the Authority is 17535 as on 31st March 2018.

2 IT SYSTEM IN AAI:

AAI implemented the ERP system of SAP in 2012-2013 with four different modules.

All major air-routes over Indian landmass are Radar covered (29 Radar installations at 11 locations) along with VOR/DVOR coverage (89 installations) co-located with Distance Measuring Equipment (90 installations). 52 runways are provided with ILS installations with Night Landing Facilities at most of these Airports and Automatic Message Switching System at 15 Airports.

AAI's successful implementation of Automatic Dependence Surveillance System (ADSS), using indigenous technology, at Calcutta and Chennai Air Traffic Control Centres, gave India the distinction of being the first country to use this advanced technology in the South East Asian region thus enabling effective Air Traffic Control over oceanic areas using satellite mode of communication. Use of remote controlled VHF coverage, along with satellite communication links, has given added strength to our ATMS. Linking of 80 locations by V-Sat installations shall vastly enhance Air Traffic Management and in turn safety of aircraft operations besides enabling administrative and operational control over our extensive Airport network. Performance Based Navigation (PBN) procedures have already been implemented at Mumbai, Delhi and Ahmedabad Airports and are likely to be implemented at other Airports in phased manner.

AAI has undertaken GAGAN project in technological collaboration with Indian Space and Research Organization (ISRO), where the satellite based system will be used for navigation. The navigation signals thus received from the GPS will be augmented to achieve the navigational requirement of aircrafts. First Phase of technology demonstration system has already been successfully completed in February 2008. Development team has been geared up to upgrade the system in operational phase.

AAI has also planned to provide Ground Based Augmentation System (GBAS) at Delhi and Mumbai Airports. This GBAS equipment will be capable of providing Category-II (curved approach) landing signals to the aircrafts thus replacing the existing instrument landing system in the long run, which is required at each end of the runway.

The Advanced Surface Movement Guidance and Control System (ASMGCS), installed at Delhi, has upgraded operation to runway 28 from CAT-IIIA level to CAT-IIIB level. CAT-IIIA system permits landing of aircrafts up to visibility of 200mtrs. However, CAT-IIIB will permit safe landing at the Airports at a visibility below 200 mtrs but above 50mtrs.

Information Security Management Systems (ISMS) policy, Information Technology (IT) procurement systems and services policy, cyber security framework, procedures under IT Apex Policy, policy on engaging technology start-up firms ,night parking policy and engaging Mechanised Environment Support Services (MESS) on Quality & Cost Based Selection (QCBS) for up-keep of airports are some of the key initiatives undertaken in the year 2017-18 besides taking forward the Ministry's initiatives like Digi-Yatra Policy for seamless passenger processing through terminals from entry point to the boarding gates, Ground Handling Regulations-2017,Regional Connectivity Scheme, etc.

C INTERNAL AUDIT

The internal audit department monitors and evaluates the efficacy and adequacy of internal control system in the organisation, its compliance with operating systems, accounting procedures and the policies at all locations. Based on the report of internal audit function, the airports undertake corrective action in their respective areas and strengthen the controls, significant audit observations and corrective actions thereon are presented to the audit committee of the Board. The internal Audit of AAI is conducted by the separate Internal Audit Cell headed by Executive Director and Chartered Accountants are engaged on need basis for internal audit at various Regions/ Airports.

1 ACTS RULES, OTHER DOCUMENTS APPLICABLE:

The Acts, Rules Guidelines as set out by the Ministry of Civil Aviation is applicable to the Authority. Some of the Act /Rules/Policies are given below:

1. Airport Authority of India Act, 1994 As amended by the Amendment Act 2003
2. The Airports Economic Regulatory Authority of India Act,2008.
3. Rules governing the height of building Structure around Airports
4. Aircraft Security Rules 2011
5. Airports Authority of India Major Airports Development Fees Rules, 2011
6. The Aircraft Demolition of obstructions caused by Buildings & Trees Rules, 1994
7. New Civil Aviation Policy,2016
8. Standards and Practices Recommended by International Civil Aviation Organisation.

2 POLICIES:

1. Guidelines for setting up of Greenfield Airports
2. Guidelines for Slot Allocation, Revised in May 2013
3. Digi-Yatra Policy
4. Ground Handling Regulations-2017

(a) OPERATIONAL PERFORMANCE:

S.No	Particulars	2015-16	2016-17	2017-18
1	Total Aircraft Movements (in numbers) (Domestic & International)	1795457	2049085	2324551
2	Total Passengers (in numbers) (Domestic & International)	223955219	264969723	308753400
3	Total Freight (in MT) (Domestic & International)	2704575	2978241	3357028

(b) FINANCIAL PERFORMANCE:

S.No.	Particulars	2015-16	2016-17	2017-18
		(Rs. In crores)		
1	Revenue from Operations (Aeronautical & non-aeronautical revenue)	10225.20	11860.54	12306.69
2	Profit after Tax	2537.36	2801.64	3115.93
3	Transferred to Airport Reserve	642.51	796.39	715.18
4	Transferred to General Reserve	963.76	1194.59	1072.76

3 AUDITABLE UNITS UNDER AIRPORT AUTHORITY OF INDIA (WESTERN REGION)

1.	Co-ordination cell , Mumbai	High
2.	Escrow Account - PSF	High

3.	Annual accounts	High
4.	Regional Office (WR), Mumbai (including 4 airports selected given below) and two departments (Department of Planning and Engineering and Dept of Commercial)	High
1	AKOLA	Medium
2	AHMEDABAD	High
3	GOA	High
4	PUNE	High
5	INDORE	High
6	JUHU	High
7	VADODARA	High
8	BHOPAL	High
9	AURANGABAD	High
10	NAGPUR -JV	High
11	SURAT	High
12	RAJKOT	Medium
13	GONDIA	Medium
14	JABALPUR	High
15	JAMNAGAR	Medium
16	BHUJ	Medium
17	PORBANDAR	Medium
18	BHAVNAGAR	Medium
19	NANDED	Medium
20	KOLHAPUR	Medium
21	SOLAPUR	High
22	KANDLA	Medium
23	DIU/DEESA	Medium
24	KESHOD	Medium
25	LATUR	Medium
26	SONGHAD	Medium
27	JALGAON	Medium

Annual accounts audit of airport authority (WR) is conducted every year and 4 Airports are selected on risk basis every year.\

4 AUDIT CRITERIA

Audit criteria are derived from the following:

- Adherence to the clauses in the contracts, concession agreements to protect the interest of AAI
- Adherence to various Acts, guidelines and circulars issued by the statutory authorities such as MoCA, DGCA, AERA etc.
- Consistency and compliance of Accounting standards and /procedures in ERP system.
- Revenue realisation from the airport operators and concessionaires.
- Observations made by the Independent Auditors in their reports

Objectives of the Audit are to assess whether:

- Whether Detailed Feasibility Report(DFR) was prepared either in-house or from a qualified consultant before implementation of high value projects
- Whether the laid down procedure existing in the organization, which is line with the CVC guidelines are being followed in a transparent manner while awarding the contracts to parties.
- Existence of suitable mechanism for monitoring the projects during execution and O&M stage; and whether the projects were completed within the estimated cost, desired timeframe and in cases of any delay/default; appropriate steps had been taken to protect the interest of AAI as per the guidelines.
- Whether the guidelines issued by various statutory authorities (MoCA/DGCA/AERA) are compiled in respect of the safety/security of airports and passengers.
- Whether the gross revenue received by the private operators is shared with AAI as per the terms of OMDA and accounted properly. The observations of Independent Auditors in respect of non-sharing of revenue by airport operators had pursued properly in time for recovery.
- Expenditure from PSF (SC) Escrow account is incurred according to the laid down procedure stipulated as per the terms of Operation Management and Development

Agreement (OMDA) and State Support Agreements (SSAs.) and various circulars issued by MoCA.

(a) DPS PRINTED DURING THE LAST THREE YEARS

Audit Report 2016	
Injudicious investment of Rs. 200.90 crore on development of Bissi Airport at Gondia	Report No.15 of 2016 Para 2.5
Potential loss of revenue to AAI and undue benefit to MIAL resulting from flaw in agreement between MIAL and private developer(HDIL)	Report No.15 of 2016 Para 2.1
Audit Report 2017	
NIL	
Audit Report - 2018	
Undue favour to Contractor due to levy of Liquidated damages at lesser rates for delay in construction of new International Building at Ahmedabad/Goa Airport of Rs.34.75 crore.	Report No.15 of 2018 Para 2.5

D ENVIRONMENT MANAGEMENT:

The Company has taken many steps to save energy and green environment for the better future of the coming generation. New Civil Aviation Policy-2016 is also very firm on the energy conservation planning and future friendly green & clean environment. In line with the NCAP and the responsibility towards the society to make the environment clean for future generation,

The Company has mainly taken following steps:

Energy Audit at Airports: - For Energy conservation several measures have already been taken through energy audit of electrical and mechanical installations at 56 airports by specialized energy audit agencies. Observations & recommendations are being implemented in phased manner as immediate measures, short terms measures and long term measures as per the schedule.

Major initiatives taken to conserve the energy:-

- Improvement & maintaining of power factor between 0.91 to 0.99 and getting incentives from SEB's.
- Replacement of conventional light fittings with energy efficient LED light fittings.
- Installation of Solar power plants.
- Measures taken up for energy conservation on recommendation of energy auditors after energy audit at Airports, which includes various short term measures and long terms measures.

- Some of the key measures are replacement of centrifugal type chillers with new energy efficient screw type chillers for HVAC system, provision of Variable Frequency Drive for Air handling units, Provision of APFC panel for improvement of Power factor, using energy efficient pumps and motors etc.

Installation of Solar PV Plant at Airports: -

The Company has also implemented the long term measures for energy conservation in terms of setting up the solar power plant for energy generation at various airports. AAI has commissioned 30.15 MWp Solar Power Plant at Airports by which AAI is able to generate approx. 31.76 lakh units in the month of March'2018. AAI has generated 368.87 lakh units till March'2018 and reduced approximately 330 Metric Ton of Carbon emission. Total 5.49 MWP capacity roof top & ground mounted Solar Plant installation works are in progress at Airports.

CHAPTER-VII

PART-I

AUDIT OF AUTONOMOUS BODIES

A INTRODUCTION:

Audit of Autonomous Bodies can aptly be regarded as a delicate audit. Audit should ensure that these bodies are properly held accountable for the public funds placed at their disposal and they achieved the objectives for which they are set up or programmes entrusted to them. Audit should not take a fragmented view of these institutions but reflect certain sensitivity to the aspiration of the common citizen.

1 Audit Mandate

Audit of autonomous bodies is provided for in the C&AG's (DPC) Act, 1971 under sections 14, 15, 19 and 20.

Audit of C&AG falls under the following categories:

(1) Autonomous bodies that are established by or under law made by Parliament and which have a specific provision for audit by the C&AG of India. In such cases, the C&AG is duty bound to take up these institutions for audit under Section 19(2) of the Act.

(2) Section 19(3) is regarding the entrustment of audit of State autonomous bodies to C&AG after consultation with him.

(3) sub-section 2 of section 20 gives authority to the C&AG to propose to the President or the Governor as the case may be to authorize him to undertake audit of accounts of any body or authority not entrusted to him if he is of the view that such audit is necessary, in public interest, because of substantial investment or advances made to such body or authority by the Central/ State/ Union Territory Government.

2 Definition of the term Body or Authority

The term 'bodies or authorities' is not defined in the Act or in the Constitution. However, based on the definition provided by Attorney General, and as given in the Regulations these will mean as below:

Body: Body is interpreted to mean an aggregate of persons, whether incorporated or unincorporated. The expression would, therefore, include institutions or organizations set up as an autonomous organization under specific statutes or as a society registered under the Societies Registration Act, 1860 or Indian Trust Act, 1882 or any other statutes, voluntary organizations, non-government organizations, urban or rural local self-government institutions, co-operative societies, societies or clubs, etc.

Authority: Authority is interpreted to mean a person or body exercising power or command, vested in it by virtue of provisions in the Constitution or Law passed by Parliament or legislature. Broadly, therefore, these autonomous bodies may be defined as bodies or authorities established by the Government and having a distinct legal existence. These are broadly independent or autonomous in their day-to-day functioning but concerned Ministries/ Departments have significant control over these bodies in matters of general direction and supervision. CAG's revised Manual of Instructions on Autonomous Bodies has clarified that 'the terms 'body' and 'authority' used in the Act and indeed in the Constitution have a wide connotation and include a company or corporation'. It would mean that if a company or corporation is not covered by Section 19 (1), 19 (2), or 19 (3) of the Act it is open, strictly speaking, to take up audit under Section 14 (1), 14 (2) or 20 (2), as the case may be, subject to conditions specified in each section being satisfied.

(a) CAG as the Sole Authority

C&AG acts as sole auditor in respect of some of these bodies or authorities (under section 19 and 20) and in that capacity, he conducts financial audit of their annual accounts and issues audit report and certification on financial statements. Besides, he also conducts compliance and Value For Money (VFM) audits of these bodies and authorities.

Propriety audit under section 14, 19 and 20 was to be conducted in cycles ensuring that all autonomous bodies were covered once in three years or less. However, major autonomous bodies are subjected to propriety audit every year. A risk-based approach should be adopted to select entities for compliance audit and more frequent and intensive audit for the 'very high risk category' entities should be undertaken.

For guidance on audit of Autonomous Bodies C&AG's manual of instructions for audit of Autonomous bodies of 2007 gives the application guidance with an operational focus, process of audit and provide a check list for conducting financial audit of Autonomous bodies. A practice Note was issued by the C&AG's Professional Practice Group on 25/10/2017 on the Financial Attest Audit of Autonomous Bodies.

Inspection reports on compliance (transaction) audit of Central autonomous bodies are finalized and issued by the field audit offices. Important paras that merit a place in C&AG's Audit Report are proposed to Headquarters in the usual manner for inclusion in the Central Audit Report on Autonomous Bodies signed by the DGACR. DGACR acts as the nodal authority for the draft paras pertaining to autonomous bodies.

This office maintains an updated database of these units and regular audit is conducted based on the risk assessment and manpower availability. A Half yearly return as per Hqrs. Circular CA/IV-2013 dated 08/05/2017 is sent to Hqrs in January(31 December) & July(30 June) on the status of audit under the audit jurisdiction of this office.

Audit of the Autonomous Bodies is undertaken by LAP-III/Baroda.

3 AUDIT OF AUTONOMOUS BODIES AS PRINCIPAL AUDITOR

(a) NATIONAL INSTITUTE OF DESIGN (NID), AHMEDABAD

B INTRODUCTION:

NID Established in 1961 is an autonomous institution under the aegis of the Ministry of Commerce and Industry, Government of India. NID Act 2014 has been enacted by the Parliament and has come into force from the appointed date of 16 September 2014. It is also recognized by the Department of Scientific and Industrial Research, Government of India as a Scientific and Industrial Research Organization. NID anchors itself to cultural strengths of India and fosters strategic design linkages of innovation and entrepreneurship with the various sectors of industry.

(a) Mandate of NID:

The mandate for NID is

1. To offer world-class design education and to promote design awareness and application towards raising the quality of life by and through Education to create design professionals of excellence to help meet India's diverse design needs.
2. To train design trainers for other design and design-related institutions and positions in the 21st century as global leaders in Design Education and Research by recognizing the changes in economic and business environment nationally and globally.
3. Ensuring the expansion in the number of quality design professionals and faculty, through existing and new institutional mechanisms.
4. Encouraging the design of products and systems of everyday use in a spirit of restless search for indigenous design solutions by focusing on affordable design for the masses.
5. To undertake fundamental and applied research to create cutting edge knowledge in the areas of design especially those concerned with user understanding and trends.
6. To help place designers in key sectors of national need for benchmarking of standards of design education and practice, and encouraging 'thinking global and acting local'.
7. To offer integrated design consultancy services and cutting edge design solutions providing practice opportunities to students as well as a revenue stream to the institute.
8. Providing design inputs from the point of view of using design as an integrating force in varied areas like science, technology, management etc. to raise quality of life through well designed products, services, processes, systems, etc.

9. To humanise technology and integrate the physical with the virtual and digital worlds through better information and interface design.

1 Audit Mandate:

Audit is taken up under Section 19(2) of CAG's (DPC) Act, 1971. Section 25(2) of the NID Act, 2014 provides for audit to be undertaken by C&AG for certification of accounts and placement of Audit Report in the Parliament under Section 25(4) of the NID Act, 2014. This audit was entrusted to this Office during 2011-12. Prior to 2013-14 the audit was undertaken by this office under Section 14(1) of the DPC Act. The entrustment of this audit under section 19(2) was approved by Hqrs during April'2016. The accounts audit of NID was taken up in 2017-18 and is completed till 2016-17.

2 Financial Resources of 2016-17:

During the year, the Institute received grants from Government for Recurring Expenditure to the tune of ₹ 23.97 Crore and grant towards Non-Recurring Expenditure (Capital) was received for ₹ 98.66 Crore. Receipts by the Institute through Consultancy service fees/Tuition fees/Miscellaneous Income was ₹ 32.88. The certification audit for the year 2016-17 has been completed and SAR has been issued.

3 AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION (ATIRA), AHMEDABAD

1 INTRODUCTION :

ATIRA is an autonomous non-profit association for textile research Textile Research Institute under Ministry of Textiles, GoI. It is the largest of its kind in India for textile and allied industries. ATIRA was established on 13th December 1947, and started in 1949 after due recognition by the Council of Scientific and Industrial Research under the Ministry of Science and Technology, Government of India. Later it was linked to the Ministry of Textiles. ATIRA is located in Ahmedabad.

ATIRA has 97 units spread all over India and abroad, 87 are Ginning, Spinning, Weaving, Process Houses and Composite Textile Units and 10 are manufacturers of fibres, dyes, chemicals, instruments, equipments and machinery.

This Audit under Section 14 (1) and (3) of CAG's (DPC) Act, 1971 was entrusted to this Office from 2011-12. ATIRA is governed by Societies Registration Act, 1947.

(a) Objectives of ATIRA:

Objectives of ATIRA as follows:

1. To improve the technical and financial performance at the units as well as at sector levels
2. Promotion of culture fostering a professional approach on the part of technologists and management to the problems of industry
3. Interaction with the policy formulation process of the Government and other relevant agencies towards framing of rational set of national textile objections and creation of delivery systems for these
4. The Science and technology activities in the nature of R&D activities include:
 - (a) Process optimisation for improved process control leading to better quality, cost reduction and export promotion.
 - (b) Development of new products, processes and design of new instruments, equipments and machinery
 - (c) Support studies in the area of environmental pollution, management, human relations and policy aspects.
5. The extension activities include:
 1. Consultancy in all operational areas related to the industry
 2. Techno-commercial viability studies
 3. Testing a wide spectrum in the field of chemical and mechanical testing ensuring authenticity, accuracy and confidentiality with the Accreditation from the National Accreditation Board for Testing and Calibration Laboratories (NABL)
 4. Dissemination to industry through the publications of ATIRA
 8. Training covering different levels from workers to top management.

(b) FINANCIAL RESOURCES

ATIRA has four sources of finance:

1. Annual Subscription from member units.
2. Income from services rendered.
3. Sponsored research from Industry, Ministry of Textiles, Ministry of Information Technology and other agencies like Gujarat State Government.

4. Grant-in-aid from Government of India.

D ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA (EDII), AHMEDABAD

Introduction:

Entrepreneurship Development Institute of India (EDII), an autonomous body and not-for-profit institution, set up in 1983, is sponsored by apex financial institutions, namely the IDBI Bank Ltd, IFCI Ltd. ICICI Ltd and State Bank of India (SBI). The Institute was Set up in 1983 as registered society Promoted by IDBI Bank Ltd., ICICI Bank Ltd., IFCI Ltd., and State Bank of India with support from State Government of Gujarat.

Audit under Section 14 (1) of CAG's (DPC) Act, 1971

2 Functions & Objective of the EDII

1. The Institute Contributes in institutionalizing entrepreneurship in business education.
2. Conducts variety of programmes around thrust areas such as:
 - (a) Entrepreneurship education and research
 - (b) Micro enterprises and sustainable livelihood
 - (c) SMEs and Business Development Services
 - (d) Social Entrepreneurship
 - (e) Cluster Development
 - (f) Woman Entrepreneurship
 - (g) Selected as a member of the Economic and Social Commission for Asia and the Pacific (ESCAP) network of Centres of Excellence for HRD Research and Training.

E AUDIT OF AUTONOMOUS BODIES AS SUB-AUDITOR

1 INTRODUCTION:

The following audit is undertaken by this Office in the capacity of Sub-Auditors under Section 14 of the C& AG's DPC Act, 1971. The Status of Audit Conducted in the capacity of sub-auditor are also enumerated :

S.No	Name of the Unit	Principal Auditor	Status of Audit
1	Khadi and Village Industries Commission(KVIC), State Office, Ahmedabad (including other 9 registered institutes/ trusts/ NGO units at Ahmedabad/ Gandhinagar)	O/o PDCA & Ex-officio MAB-I, Mumbai	The audit of KVIC State Office, Ahmedabad is conducted upto 2017-18 The audit of Khadi Gramudyog Prayog Samiti Ahmedabad for the year 2010-11 to 2016-17 has been conducted
2	KVIC, Palanpur Sub-Office (includes 3 registered institute/trust/NGO units at Radhanpur, Vadodara and Valsad)	O/o PDCA & Ex-officio MAB-I, Mumbai	Not audited till date
3	KVIC, Resham Khadi Gram Sangh, Rajkot (includes 5 other units at Surendranagar/ Wadhwan&Mundra)	O/o PDCA & Ex-officio MAB-I, Mumbai	Not audited till date
4	Self Employed Women Association (SEWA), Ahmedabad		This audit was taken up. However our could not be continued due to resistance by the Organisation
5	Spices Board, Ahmedabad	O/o MAB, Chennai	Audit completed upto 2016-17.
6	Marine Products Export Development Agency (MPEDA), Regional Office,Veraval	O/o MAB,Chennai	Audit completed upto 2014-15

7	Indo German Tool Room, Ahmedabad		Audit completed upto 2014-15
8	Coir Board Showroom & Sales Depot, Ahmedabad Room (IGTR) Ahmedabad	MAB, Chennai	Audit conducted upto 2014-15.
9	National Institute of Fashion Technology, Gandhinagar	MAB-II, New Delhi	Audit conducted upto 2016-17

F THE MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY (MPEDA) :

1 INTRODUCTION :

The Marine Products Export Development Authority (MPEDA) was set up by an act of Parliament during 1972. The erstwhile Marine Products Export Promotion Council established by the Government of India in September 1961 was converged in to MPEDA on 24th August 1972. MPEDA is given the mandate to promote the marine products industry with special reference to exports from the country. It is envisaged that this organisation would take all actions to develop and augment the resources required for promoting the exports of “all varieties of fishery products known commercially as shrimp, prawn, lobster, crab, fish, shellfish, other aquatic animals or plants or part thereof and any other products which the authority may, by notification in the Gazette of India, declare to be marine products for the purposes of (the) Act”. The Act empowers MPEDA to regulate exports of marine products and take all measures required for ensuring sustained, quality seafood exports from the country. MPEDA is given the authority to prescribe for itself any matters which the future might require for protecting and augmenting the seafood exports from the country. It is also empowered to carry out inspection of marine products, its raw material, fixing standards, specifications, and training as well as take all necessary steps for marketing the seafood overseas.

MPEDA is the nodal agency for the holistic development of seafood industry in India to realise its full export potential as a nodal agency. Based on the recommendations of MPEDA, Government of India notified new standards for fishing vessels, storage premises, processing plants and conveyances. MPEDA’s focus is mainly on Market Promotion, Capture Fisheries,

Culture Fisheries, and Processing Infrastructure & Value addition, Quality Control, Research and Development.

2 Functions of MPEDA in brief:

1. Registration of infrastructural facilities for seafood export trade.
2. Collection and dissemination of trade information.
3. Promotion of Indian marine products in overseas markets.
4. Implementation of schemes vital to the industry by extending assistance for infrastructure development for better preservation and modernised processing following quality regime.
5. Promotion of aquaculture for augmenting export production through hatchery development, new farm development, diversification of species and up gradation of technology
6. Promotion of deep-sea fishing projects through test fishing, joint ventures and up gradation & installation of equipments to increase the efficiency of fishing.
7. Market promotional activities and publicity.
8. To carry out inspection of marine products, its raw material, fixing standards and specifications, training, regulating as well as to take all necessary steps for maintaining the quality of seafood that are marketed overseas.
9. Impart trainings to fishermen, fish processing workers, aquaculture farmers and other stake holders in the respective fields related to fisheries.
10. Conduct research and development for the aquaculture of aquatic species having export potential through Rajiv Gandhi Centre for Aquaculture (RGCA).
11. Conduct extension and awareness activities, trainings etc through Network for Fish Quality Management and Sustainable Fishing (NETFISH) & National Centre for Sustainable Aquaculture (NaCSA).
12. To prescribe for itself any matters required for protecting and augmenting the seafood exports from the country in the future.

G SPICES BOARD

1 INTRODUCTION:

Spices Board was constituted on 26th February 1987 under the Spices Board Act 1986 (No. 10 of 1986) with the merger of the erstwhile Cardamom Board (1968) and Spices Export

Promotion Council (1960). Spices Board is one of the five Commodity Boards functioning under the Ministry of Commerce & Industry. It is an autonomous body responsible for the export promotion of the 52 scheduled spices and development of Cardamom (Small & Large).

(a) Main Functions of Spices Board :

1. Research, Development and Regulation of domestic marketing of Small & Large Cardamom
2. Post-harvest improvement of all spices
3. Promotion of organic production, processing and certification of spices
4. Development of spices in the North East
5. Provision of quality evaluation services
6. Export promotion of all spices through support for:-
7. Technology upgradation.
8. Quality upgradation
9. Brand promotion
10. Research & product development
11. Other responsibilities related to export promotion of spices:
12. Quality certification and control
13. Registration of exporters
14. Collection & documentation of trade information
15. Provision of inputs to the Central Government on policy matters relating to import & export of spices
16. Multi-faceted activities
17. Promotion of exports of spices and spice products
18. Maintenance and monitoring of quality of exports
19. Development and implementation of better production methods, through scientific, technological and economic research.
20. Guidance to farmers on getting higher and better quality yields through scientific agricultural practices.
21. Provision of financial and material support to growers.
22. Encouraging organic production and export of spices.
23. Facilitating infrastructure for processing and value addition
24. Registration and licensing of all spice exporters.
25. Assistance for studies and research on better processing practices, foolproof quality management systems, improved grading methods and effective packaging techniques.
26. Production of promotional and educative materials in a variety of media for the benefit of exporters and importers.

27. Package of services for exporters/importers
28. Helps exporters and importers in establishing mutual contact.
29. Identifies competent supply sources for specific requirements of importers
30. Processes and forwards foreign trade enquiries to reliable exporters.
31. Organises a common platform for interaction between Indian exporters and international buyers through participation in major international exhibitions and meetings.
32. Examine complaints from importers for corrective and preventive action
33. Spearheads the quality improvement programme for Indian spices.
34. Manages a comprehensive and up-to-date data bank for exporters and importers.
35. Brings together international bodies, exporters and policy makers through contact group programmes.
36. Makes India's presence felt in major international food fairs; conducts food festivals and cooking demonstrations.

H COIR BOARD

1 INTRODUCTION :

Government of India set up Coir Board, under an Act of Parliament viz., Coir Industry Act, 1953 (45 of 1953) for the development of coir industry in India and for promotion of domestic as well as export markets of coir and coir products.

(a) Function of the Board

The main functions of the Board, as laid down under Section 10 of the Coir Industry Act, 1953 are given below:

1. It shall be the duty of the Board to promote by such measures, as it thinks fit, the development, under the control of the Central Government, of the Coir Industry.
2. Without prejudice to the generality of the provisions of Sub Section (1), the measures referred to therein may relate to:

(a) Promoting exports of coir yarn and coir products and carrying on propaganda for that purpose;

- (b) Regulating, under the supervision of the Central Government, the production of husks, coir yarn and coir products by registering coir spindles and looms for manufacturing coir products as also manufacturers of coir products, licensing exporters of coir, coir yarn and coir products and taking such other appropriate steps as may be prescribed;
- (c) Undertaking, assisting or encouraging scientific, technological and economic research and maintaining and assisting in the maintenance of one or more research institutes;
- (d) Collecting statistics from manufacturers of, and dealers in, coir products and from such other persons as may be prescribed, on any matter relating to coir industry, the publication of statistics so collected or portions thereof or extracts there from;
- (e) Fixing grade standards and arranging, when necessary, for inspection of fibre, coir yarn and coir products;
- (f) Improving the marketing of coconut husk, coir fibre, coir yarn and coir products in India and elsewhere and preventing unfair competition;
- (g) Setting up or assisting in the setting up of factories for the producers of coir products with the aid of power;
- (h) Promoting cooperative organizations among producers of husks, coir fibre and coir yarn and manufacturers of coir products;
- (i) Ensuring remunerative returns to producers of husks, coir fibre and coir yarn and manufacturers of coir products;
- (j) Licensing of retting places and warehouses and otherwise regulating the stocking and sales of coir fibre, coir yarn and coir products both for the internal market and for exports;
- (k) Advising on all matters relating to the development of the coir industry;
- (l) Such other matters as may be prescribed.

3. The Board shall perform its functions under this Section in accordance with and subject to such rules as may be made by the Central Government.

(b) Constitution of the Board

Govt. of India had set up Coir Board under an Act of Parliament viz. Coir Industry Act, 1953 (45 of 1953) for the development of coir industry and for promotion of domestic as well as export market of coir and coir products.

Section (4) of the Coir Industry Act, 1953 empowers Central Govt. to constitute Coir Board. The Sub Rule 4 of the Coir Industry Rules 1954 provides the number of persons to be appointed

as members from each of the categories specified in sub section (3) of Section 4 of the Act as follows:

- (a) Growers of coconut and producers of husks and coir yarn - 3
- (b) Persons engaged in the production of husks, coir and coir yarn and in the manufacture of coir products - 3
- (c) Manufacturers of coir products - 3
- (d) Dealers in coir, coir yarn and coir products including both exporters and internal traders - 3
- (e) Parliament - 2 members to be elected by the Lok Sabha and one to be elected by the Rajya Sabha - 3
- (f) The Govts. of principal coconut growing states - 5
- (g) Such other persons or class of persons who in the opinion of Central Govt. ought to be represented on the Board - 19.

The Govt. of India vide Gazette Notification No. SO 2677 (E) dated 30.09.2015 reconstituted the Board with 18 members (from category (e), (f), (g) only) for a period of 3 years.

(c) Financial Resources

1. Money received under Section 14A of Coir Industry Act 1953 (Grants in aid) Rs. 7516.21 lakhs during 2015-16.
2. Extra budgetary resources was received from the Ministry of MSME towards the implementation of Scheme ASPIRE (Rs. 150.00 lakhs) A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship) and Releases of funds of Rs. 27.67 lakhs from Ministry of Commerce and Industry for organizing India International Coir Fair (IICF) 2013 at New Delhi towards reimbursement of air fare and accommodation for foreign buyers/delegates who attended the RBSM at the event.
3. Towards the setting up of Common Facility Centre in Singai Cluster, Singampunari, Tamil Nadu under Micro Small Enterprises-Cluster Development Programme (MSE-CDP) an amount of Rs.152.00 lakhs for Singai Coir Cluster has been utilized during the year out of the extra budgetary resources of funds received in the year 2013-14.

(d) Provision of Audit of Accounts by the Board by C&AG :

As per Section 17 of the Coir Industry Act, 1953, the Accounts of the Board are subject to Audit by the C& AG of India. The accounts for the year 2014-15 were audited by the C&AG of India during the period under report. The audit report along with statement of accounts was laid on the tables of Lok Sabha and Rajya Sabha respectively on 14-03-2016 and 10-03-2016.

I The Khadi and Village Industries Commission (KVIC)

1 INTRODUCTION :

The Khadi and Village Industries Commission (KVIC) took over the work of All India Khadi and Village Industries and was formed as a Statutory Body established by an Act of Parliament (No 61 of 1956 as amended by Act No 12 of 1987 and Act No.10 of 2006) under The Ministry of MSME.

(a) Objective :

The broad objectives of KVIC are as under :

1. The social objective of providing employment.
2. The economic objective of producing saleable articles.
3. The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

(b) Functions

Some of the major functions of KVIC are as under :

- 1 The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- 2 Its functions also comprise building up of a reserve of raw materials and implements for supply to producers, creation of common service facilities for processing of raw materials as semi-finished goods and provisions of facilities for marketing of KVI products
- 3 Training of artisans engaged in these industries and encouragement of co-operative efforts amongst them.

- 4 To promote the sale and marketing of khadi and/or products of village industries or handicrafts, the KVIC may forge linkages with established marketing agencies wherever feasible and necessary.
- 5 The KVIC is also charged with the responsibility of encouraging and promoting research in the production techniques and equipment employed in the Khadi and Village Industries sector and providing facilities for the study of the problems relating to it, including the use of non-conventional energy and electric power with a view to increasing productivity, eliminating drudgery and otherwise enhancing their competitive capacity and arranging for dissemination of salient results obtained from such research.
- 6 Further, the KVIC is entrusted with the task of providing financial assistance to institutions and individuals for development and operation of Khadi and village industries and guiding them through supply of designs, prototypes and other technical information.
- 7 In implementing KVI activities, the KVIC may take such steps as to ensure genuineness of the products and to set standards of quality and ensure that the products of Khadi and village industries do conform to the standards.
- 8 The KVIC may also undertake directly or through other agencies studies concerning the problems of Khadi and/or village industries besides research or establishing pilot projects for the development of Khadi and village industries.
- 9 The KVIC is authorized to establish and maintain separate organisations for the purpose of carrying out any or all of the above matters besides carrying out any other matters incidental to its activities.

(c) INDO GERMAN TOOL ROOM AHMEDABAD :

Indo German Tool Room, Ahmedabad India, is a Government Of India Non profit autonomous society, as an institute in Tool and Die making and modern production technology.

Since liberalization of the economy established in 1994, India faces strong international competition. Thus, growth and diversification of its industry are increasingly characterized by a shift from simple to technically complex products.

Many enterprises aim at high value-addition. Modernization and automation of production processes increase productivity and reduce unit cost.

This is particularly true for the engineering industries (**metal and plastics processing ventures**) as well as **small and medium-scale enterprises (SME)**. They manufacture

tools and molds or use them for producing parts, components, systems, and final products, often as sub-contractors of large enterprises.

In recent years the quality of their products and the efficiency of their production processes augmented considerably . Nevertheless, many SME still face constraints. They are related to rapid changes of the market and accelerated technological progress.

It has established as most reliable source for Small & Medium Enterprises (SME's) for their tooling requirements. Besides tool room activities, society permits use of its resources to industries like precision machining, quality control and **CAD-CAM-CAE-RPT (Software in the Product design)** services. **The tool room** is also a source for day one Productive and trained manpower at entry level in tool and die making and **CAD-CAM-CAE and CNC technology**.

The Objectives of the Tool Room are to assist small-scale enterprises, particularly metal and plastic groups in the fields of...

Design and manufacture of Tools & Dies Moulds, Jigs & Fixtures, Gauges etc and their appropriate use and maintenance

Modern production technology

Tool-related innovations for improved product design

Training and up gradation in Tool & Die Technology

Productivity improvement

PART -II

SUBSIDIARIES/JVS

ONGC PETRO ADDITIONS LTD (OPAL)

A INTRODUCTION:

OPAL has been incorporated on 15th November 2006 as a Public Limited Company under the companies Act, 1956, promoted by Oil and Natural Gas Corporation (ONGC) and co-promoted by GAIL and GSPC, with Registered Office at Jeevan Bharti, Tower-II, 124, Indira Chowk, New Delhi - 110001.

1 Objective of the Company:

The main objectives of the company are:

OPaL was formed for setting up a grass root mega Petrochemical project at Dahej, Gujarat in PCPIR/SEZ. Dual Feed Cracker Unit with the capacity to produce 1100 KTPA Ethylene, 400 KTPA Propylene and the Associated Units consists of Pyrolysis Gasoline Hydrogenation Unit, Butadiene Extraction Unit and Benzene Extraction Unit. The Polymer plants of OPaL has 2X360 KTPA of LLDPE/HDPE Swing unit, 1X340 KTPA of Dedicated HDPE and 1x340 KTPA of PP. All the major contracts have been awarded and the construction is in full swing.

2 FINANCIAL POSITION AND PERFORMANCE :-

The authorized share capital of the Company is Rs.8000 crores. The Company decided that the project financing will be through debt and equity in the ratio of 70:30 till Commercial Operation Date (COD) and 60:40 post COD. The Company has received Rs.1633.78 crore (including Rs.332.87 crore towards share application money pending allotment) towards equity from the JV partners till 31-03-2013. The Company availed the short term loans from the banks for project finance. The Company achieved the financial closure during March 2013 and entered into Rupee Term Loan (RTL) agreement with consortium of banks. As per the financial closure the Company will avail Long term loan of Rs.12837 crore and Medium Term Loan of Rs.2140 crore from consortium of banks. The Company has received Rs.2692.85 crore from the JV partners up to August 2013 (including Rs.670.92 crore as share application money from ONGC against Rights issue). The Company has availed long term loan of Rs.10000 crore and Medium Term Loan of Rs.2140 crore till 14 September 2013.

(a) Current Status of the project in OPaL:-

The Company has awarded the contracts for various packages and the progress of the said packages as on 31-07-2013 as follows:

Sl No	Particulars of units	Contractor's name	Date of NOA	Awarded cost (Rs. In crore)	Scheduled Completion date	Progress as on 31.07.2013
1	Cracker Plant	M/s Samsung Engineering, Korea	23.12.2008	6850	23.08.2012	Mechanically Completed
						On 12.09.2012

2	LLDPE/HDP E (Swing) unit	M/s Tecnimont Spa, Italy &Tecnimont ICB India	03.06.2011	1287	02.10.2013	70.2%
3	Poly Propylene unit	M/s Tecnimont Spa, Italy &Tecnimont ICB India	03.06.2011	688	02.10.2013	75.3%
4	HDPE	M/s Samsung Engineering, Korea	29.04.2011	1014	28.08.2013	93.3%
5	Butene- 1	M/s Technip	15.04.2011	198.74	14.04.2013	91.3%
6	Cooling water system	M/s Gammon	01.01.2011	268.50	31.12.2012	71.5%
7	Balance utilities &Offsites (U&O)	M/s Fernasconstrc tion, India	14.03.2011	1804.42	14.07.2013	70.7%

3 I.T System in OPaL

In order to meet its day-to-day business needs OPaL has deployed various Information Technology and Communications Systems including SAP based Enterprise Resource Planning (ERP) system. Some of the business modules of SAP have already gone live for about 2 years back and some additional business modules viz - CRM, TM, PI / PO are likely to be implemented in very near future.

Stakeholder position as on 31st March 2017 :

Shareholders	No. of Shares	Amount (Rs Cr)	Percentage (%)
ONGC	99, 79, 55,639	997.95	49.36%
GAIL	99, 49, 45,000	994.95	49.21%
GSPC	2, 90, 04,033	29.00	1.43%

Shareholders	No. of Shares	Amount (Rs Cr)	Percentage (%)
Individual Shareholders	24,999	0.03	0.00%
TOTAL (Issued and Subscribed) (A)	202,19,29,671	2,021.93	100.00%
ONGC- money received against share warrants (B)		1873.95	
Debentures (Compulsorily Convertible into equity) (C)		5615.00	
Total Equity Infusion (A+B+C)		9510.88	

4 Role of Audit

Transaction audit and audit of Accounts under Section 619 (4) of the Companies Act are to be conducted. However since it is a small organization, the audit is conducted on selective basis. The Acts, Rules relevant for audit and records / registers, which are essential for audit, are as follows. Mainly the Companies Act, 2013, is applicable to this company.

The following are the important Records/Registers maintained in the company.

Table Important Records/Registers maintained by the company

Agenda Notes and Minutes of the Board's meeting	Creditors and Debtors Ledgers
Cash Book,	Expenditure Register
Assets Register	Revenue Records.
Purchase Register	Inventory Register

B AVANTIKA GAS LIMITED

1 Introduction:

Avantika Gas Limited, Indore (AGL) was incorporated on 07th June 2006. It is a joint venture company of GAIL (India) Limited and Hindustan Petroleum Corporation Limited.

AGL has been nominated as the 'Authorised Entity' by the Government of India on 26th June 2008 to carry on the City Gas Distribution "CGD) for the geographical areas of Indore, Ujjain and Gwalior. AGL is operating in four different geographical areas spread across Madhya Pradesh which are Indore, Gwalior, Ujjain and Pithampur. The main product that is being marketed and distributed by the Company is Domestic PNG (Piped Natural Gas), Commercial PNG (Piped Natural Gas), Industrial PNG (Piped Natural Gas) and Compressed Natural Gas (CNG). The natural gas is supplied by Gas Authority of India Limited.

2 Objective of the Company

AGL is an authorised City Gas Distribution company promoted by Gas Authority of India Limited and Hindustan Petroleum Corporation Limited. AGL has been nominated as the 'Authorised Entity' by the Government of India on 26th June 2008 to carry on the City Gas Distribution "CGD) for the geographical areas of Indore, Ujjain and Gwalior. The authorisation had been accepted by Petroleum and Natural Gas Regulatory Board on 31st August 2009 for Indore (including Ujjain) and for Gwalior on 4th January 2010.

The Company is having a comprehensive contract and procurement manual. The manual is containing detailed procedures for various procurement activities along-with financial limits.

The Company supplies piped natural gas to domestic as well as industrial consumers. Supplies to domestic consumers are billed monthly and collections are being made online as well as through cash collection centres. For industrial consumers supplies are made against advance as well as on credit. Audit should look into sales made on credit and whether it is made as per approved credit policy and collections are made timely and in case of delay whether interest is levied on delayed payments.

AGL is operating in four different geographical areas spread across Madhya Pradesh which are Indore, Gwalior, Ujjain and Pithampur. The company has installed total steel network of 78 km upto 31st January, 2016 against 73 km from previous year & MDPE network of 877 km upto 31st January, 2016 against 344 km from previous year in the cities of Indore, Ujjain, Gwalior and Pithampur.

OPERATION RESULTS

Figures Rs in Crores

Particulars	2014-15	2015-16	2016-17
Revenue From Operations	109.25	114.33	119.82

Other income	0.82	0.85	0.82
Total Revenue	110.07	115.17	120.64
Cost of raw materials consumed	34.86	35.35	32.55
Purchase of Stock-in-Trade	35.15	26.48	18.99
Employee benefit expense	1.80	2.84	4.45
Financial costs	6.21	7.45	9.05
Depreciation and amortisation expense	3.57	5.14	7.29
Other expenses	12.45	16.35	15.48
Changes in Inventories	0.03	(0.03)	(0.04)
Total Expenses	94.07	93.58	87.82
PROFIT/LOSS FOR THE PERIOD Before Tax	16.00	21.59	32.83

EMPLOYEE STRENGTH :

Total 50 employees are working in Avantika Gas Limited in Gwalior (7), Indore (35), Pithampur (2) and Ujjain (6).

PHYSICAL PERFORMANCE FOR THE YEAR 2016-17 :

Qty. in MMSCM

Sl. No.	Name of the District	Quantity of Gas Received from GAIL	Quantity of Gas supply to domestic customers	Quantity of Gas supply to commercial customers	Qty supplied for CNG	Total
1	Indore	26.46	0.84	6.06	19.56	26.46
2	Ujjain	3.93	0.21	0.08	3.64	3.93
3	Pithampur	0.84	0.00	0.63	0.21	0.84
4	Gwalior	5.60	0.17	1.56	3.86	5.60
	Total	36.84	1.23	8.34	27.27	36.84

3 SHARE CAPITAL

The paid-up share capital of the company as on March 31, 2017 is Rs. 45,02,50,000/- consisting of 4,50,25,000 Equity Shares of Rs. 10.00 each fully paid-up. The authorized share capital of the company as on March 31, 2017 is Rs. 1,00,00,00,000 consisting of 10,00,00,000 Equity Shares of Rs. 10.00 each. There was no change in authorized share capital and paid-up share capital of the during the year under review.

SHAREHOLDING OF PROMOTERS

Shareholder's Name	Shareholding at the end of the year	
	No. of share	% of total Share of the company
GAIL (India) Limited	2,24,99,998	49.97
Hindustan Petroleum Corporation Limited	2,24,99,998	49.97
SunitVerma	1	00
N K Nagpal	1	00
ShrikantBhosekar	1	00
Satya Prakash Gupta	1	00

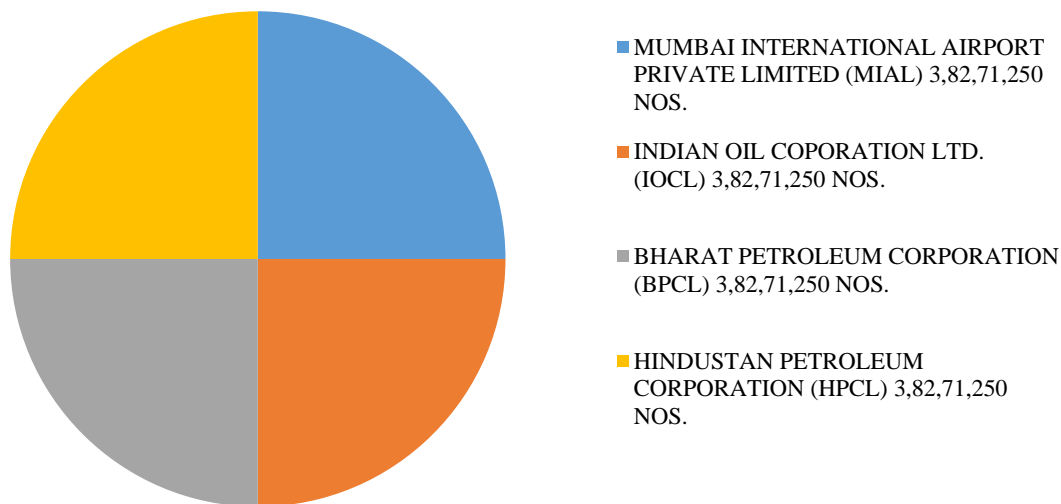
C MUMBAI AVIATION FUEL FARM FACILITY PVT. LTD. (MAFFFL)

1 INTRODUCTION:

Mumbai Aviation Fuel Farm Facility Pvt. Ltd. (MAFFFL) is a deemed PSU Under Section 139(5) of the Companies Act, 2013 formed as a Joint Venture Company by Oil PSUs viz. IOCL, HPCL, BPCL along with MIAL with Shareholding of 25% each for establishing an integrated aviation fuelling facility at a single location, operate the fuel farm and also provide Into Plane Fuelling Services. Its authorized share capital is Rs. 3,000,000,000 and its paid up capital is Rs. 1,530,850,000.

Categories of Shareholders as on 31st March 2017:

SHAREHOLDERS FOLIO



The MOU was entered into by the parties on 30th September 2010. The License agreement signed between MAFFFL and MIAL to operate the Integrated Fuel farm facilities is valid upto 2nd May 2036.

MAFFFL has planned to build an Integrated Fuel Farm Facility at Mumbai Airport on an area of 31603 sq. meters and will have static storage capacity of 47500 KL of ATF. The planned Integrated Fuel Farm Facility will operate from a single point (i.e. at the site of old IOCL and HPCL near the Domestic Terminal T1A Santacruz) to bring in the efficiencies of the integrated operations. Integrated Fuel Farm will be connected to the airport through a connector line and then onwards through the Hydrant lines to ensure uninterrupted supply of fuel to the aircrafts.

MAFFFL has operationalized with effect from 01.02.2015. However, the construction of the Integrated Fuel Farm facility has been started effectively from September'2016 and is planned to be ready for operations by November 2018. The existing facility of the Oil PSUs would be disposed in phased manner during the construction of the Integrated Fuel Farm. The dismantling of storage facilities of BPCL and IOCL at Santacruz has been done in 2014-15 and 2015-16 respectively (land handed over to MIAL). Presently disposal of storage facility of HPCL at Santacruz is in progress.

MAFFFL would provide Air Turbine Fuel (ATF) storage, handling and distribution services at Mumbai Airport (domestic and international) and would charge a Fuel Infrastructure Charge (FIC) towards the storage and handling of ATF. MAFFFL has appointed two Into-Plane

Fuelling Service (ITP) Operators, viz. Indian Oil Sky Tanking Limited (IOSL) and Bharat Stars Services Private Limited (BSSL) under Sub Concession Agreement to provide the Into Plane Fuelling Services to the Suppliers for a period of 10 years.

2 Scope of Audit

This office is entrusted with the audit of MAFFFL. The audit conducted by this office is of two types. They are Compliance Audit, Accounts Audit or Supplementary Audit. The Accounts Audit of MAFFFL is conducted annually and Compliance audit on triennial basis.

Review of Agenda meeting is done by IOCL/HO.

During the audit of MAFFFL the following documents needs to be seen:

1. License Agreements with MIAL and the License Fee paid to MIAL
2. The various contracts entered by the Company for the construction activities of Farm Fuel System/CWIP/Capitalisation
3. The disposal of the dismantled assets of the erst while tankages of the OMC's.
4. Revenue from Operations: Fuel infra income & Into Plane Revenue.

D RATNAGIRI REFINERY AND PETROCHEMICALS LIMITED(RRPCL) :

1 Introduction:

Ratnagiri Refinery And Petrochemicals Limited is an unlisted public company incorporated on 22 September, 2017. The registered office of the company is at Mumbai City, Maharashtra. RRPCL is a joint venture between Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Ltd (HPCL). IOCL holds 50% of the equity while HPCL and BPCL holds 25% each. RRPCL was incorporated on 22nd September 2017. The initial authorized share capital is ₹ 400 crore.

2 Objective of the Company:

To build one of the world's largest integrated refinery-cum-petrochemicals complexes in Ratnagiri district of Maharashtra.

The 60 million metric tonnes per annum (MMTPA) west coast refinery-cum-petrochemicals complex will be built at an estimated cost of \$40 billion, and is expected to be commissioned by the year 2022. "It will be a green refinery comprising 50 units designed to operate at the

highest level of efficiency, and will be self-sufficient in power and utilities requirements, besides creating a benchmark in environment management,” said an official statement.

The refinery is designed to produce Euro-VI and above-grade transportation fuels and will have in-built flexibility for processing a wide spectrum of light and heavy crude oil grades, utilizing various blending techniques. It will also produce on-demand product mix of petrol and diesel streams, as well as other refined products and petrochemical streams with the highest level of integration and energy efficiency.

Details of its last annual general meeting are not available. The company is yet to submit its first full-year financial statements to the registrar.

The company has 6 directors/key management personnel.

E GAS AND POWER INVESTMENT COMPANY LTD

GPICL was set up for the specific purpose of buy-out/settlement of the debt/claims of overseas shareholders, viz. Enron, GE, Bechtel etc. in relation to Dabol Power Project. It was formed as a Special Purpose Vehicle sponsored by the Indian Financial Institutions and Banks, viz. IDBI Bank, ICICI Bank, IFCI Ltd., SBI and Canara Bank.

All the payments due to foreign stakeholders were made by GPICL by raising funds by issuing GOI guaranteed bonds for Rs.1309 crore. These dues are recoverable from Ratnagiri Gas and Power Private Ltd., a company promoted by NTPC, GAIL, etc. for generation of power. The project was expected to generate power from September 2006 onwards.

The accounts of GPICL are in arrears since 2013-14.

F UJJAWALA PLUS FOUNDATION :

This Company was formed by Indian Oil, Bharat Petroleum and Hindustan Petroleum (Oil marketing companies) as a Joint Venture Private Company on 21/07/2017. The Registered Office is in Indian Oil Bhawan,G-9, Ali Yavar Jung Marg, Bandra(East), Mumbai-400 0051.

1 Objective of the Company:

1. The objective to provide Liquid petroleum gas (LPG) connections to the women from the poor households and economically weaker section of the society not covered under

Pradhan Mantri Ujjwala Yojana (PMUY) of Government of India for the purpose of promoting healthcare of poor women as well as to ensure environment sustainability by improving the quality of air.

2. To extend financial support for initial cost towards LPG connections and such assistance and support as may be needed to accomplish this noble social cause.

G INDIAN CATALYST PRIVATE LIMITED

The Company was promoted and established to manufacture Fluidised Catalytic Converter (FCC) catalyst and additives in financial year June, 2006. (Jointly with Intercat Inc. USA). It acquired land in year 2007 & 2008, however subsequently joint venture didn't materialize; thereafter, the Company has continued efforts to establish manufacturing setup but hasn't been able to put up the plant. However having regard to the decision communicated by parent company (IOCL) that it will implement "FCC Catalyst and additives manufacturing plant" at its Panipat Refinery, the land was transferred to the name of IOCL (Parent company of ICPL) on 30.12.16. The parent company also approved the proposal for winding up of the Company on 30.3.17 and the proposal is pending with Govt. of India for approval. Consequent upon transfer of land to parent company there is no asset held by the Company.

H BHARAT PETRO RESOURCES LIMITED (BPRL)

1 Introduction :

BPRL was set up for upstream activities of BPCL with the objective of having supply security, hedging of price risks and benefits of vertical integration as a 100 percent subsidiary of BPCL, with an authorised capital of Rs.5,000 crore. BPCL's investment is Rs.4942.41 crore in equity of this Company as on 31 March 2018. In addition to this BPCL has given loan of Rs.1275 crore to BPRL. Even before formation of BPRL, BPCL was engaged in the Exploration & Production activities by way of venture in the various Indian Blocks awarded during NELP rounds of bidding etc. BPRL was incorporated considering the need for a focused approach for Exploration and Production activities, implementation of the investment plans of BPCL at a quicker pace, facilitate faster decisions, mitigate

business risks, adopt the latest technology, acquire business skills, expeditiously place competent human resources etc..

The participating interests of BPCL in respect of blocks awarded to the Company were assigned to the BPRL.

(a) **Interest in Subsidiaries, Joint Ventures and Associates are set out below:**

Name	Type	Place of Incorporation	March 31, 2018
Bharat Petrjoresources JPDS Ltd. (BPRL JPDA)	Subsidiary	India	100%
BPRL International BV	Subsidiary	Netherlands	100%
BPRL International Singapore Pte Ltd.**	Subsidiary	Singapore	100%
BPRL Venture BV*	Subsidiary	Netherlands	100%
BPRL Ventures Mozambique BV*	Subsidiary	Netherlands	100%
BPRL Ventures IndonesiaBV*	Subsidiary	Netherlands	100%
BPRL International Venture BV^	Subsidiary	Netherlands	100%
IBV (Brasil) Petroleo Ltd. #	Joint Venture	Brazil	50%
Taas India Pte Ltd. @	Joint Venture	Singapore	33%
Vankor India Pte Ltd.@	Joint Venture	Singapore	33%
Mozambique LNG 1 pte Ltd. @@@	Associate	Singapore	10%
LLC TYNGD@@	Joint Venture	Russia	9.87%
JSC Vankorneft ##	Associate	Russia	7.89%
Falcon oil & Gas BV####	Joint Venture	Netherland	30%

* BPRL Ventures BV, BPRL Ventures Mozambique BV and BPRL Ventures Indonesia BV are wholly owned subsidiaries of BPRL International BV.

** BPRL International Singapore Pte Ltd. Incorporated on May 12, 2016

IBV Brasil Petroleo Ltda. is a 50% joint venture of BPRL Ventures BV and Videocon Energy Brazil Limited.

@ Taas India Pte Ltd. And Vankor India Pte Ltd., incorporated on May 23, 2016 and May 20, 2016 are joint venture companies of Oil India International Pte Ltd, IOCL Singapore Pte Ltd and BPRL International Singapore Pte Ltd (BISPL) where BISPL holds 33% equity.

@@ Taas India Pte Ltd acquired 29.9% stake in LLC TYNGD on 5 October 2016

Vankor India Pte Ltd acquired 23.9% stake in JSC Vankorneft on 5 October 2016

@@@ BPRL Ventures Mozambique BV acquired 10% stake in Mosambique LNG1 Pte Ltd on March 18, 2017

^ BPRL International Venture BV was incorporated on January 29, 2018.

Falcon oil & Gas BV is a joint venture of BPRL International venture BV incorporated on February 06, 2018.

(b) Participating Interest of BPRL

BPRL has participating interest (PI) in twenty-four blocks in 8 countries along with equity stake in two Russian entities holding licence to four producing blocks in Russia. Of the blocks, twelve are located in India, 6 in Brazil and 1 each in UAE, Israel, Mozambique, Indonesia, Australia and East Timor. Seven of the twelve blocks in India were acquired under different rounds of New Exploration Licensing Policy (NELP) and five blocks were awarded under the recently concluded Discovered small fields bid round 2016. The blocks of BPRL are in various stages of exploration, appraisal, pre-development and production. The total acreage held by BPRL and its subsidiaries is around 25,359sq km of which approx 77 percent is offshore acreage.

(c) Status of the Exploration activities:

BPRL has participating interest (PI) in twenty four blocks of which twelve are located in India and twelve overseas, along with equity stake in two Russian entities holding licence to four producing blocks in Russia. Seven of the twelve blocks in India were acquired under different rounds of New Exploration Licensing Policy (NELP) and five blocks were awarded under the recently concluded Discovered small fields bid round 2016. Of the overseas blocks, six are in Brazil and one each in UAE, Israel, Mozambique, Indonesia, Australia and Timor Leste. The blocks of BPRL are in various stages of exploration, appraisal, pre-development and production. The total acreage held by BPRL and its subsidiaries is around 25,359 sq km of which approx 77% is offshore.

BPRL and its consortia have a total of 26 discoveries in respect of Blocks held in five countries i.e. Brazil, Mozambique, Indonesia, and Australia and in India.

2 FINANCIAL PERFORMANCE:

The financial and Physical performance of the Company is as follows:

Particulars	2015-16	2016-17	2017-18
Net Revenue from Operations	-	47.50	89.70
Other Income	17.31	3.42	126.25
Net Profit/(loss) after Tax	(248.31)	(500.03)	(68.72)

I BHARAT PETRO RESOURCES LIMITED - JPDA:

Bharat Petro Resources JPDA Limited (“the Company”) was incorporated as a wholly owned Subsidiary Company of BPRL. The Company was formed as a Special Purpose Vehicle for undertaking the exploration activities in the Block JPDA 06-103 awarded to the Company, in the Joint Petroleum Development Area (JPDA), by the Autoridade Nacional do Petroleo of Timor Leste. The Company currently holds 20 *percent* participating interest (PI) each, in this block. The other consortium members are Videocon JPDA 06103 Limited & GSPC JPDA Limited, both holding 20 *percent* PI, Pan Pacific Petroleum (JPDA 06-103) Pty Limited holding 15 *percent* PI, Oilex Limited (as Operator) holding 10 *percent* PI and Japan Energy E&P JPDA Pty Limited holding 15 *percent* PI in the said block. Timor Leste Government has initiated arbitration proceedings against the Government of Australia to have the Certain Maritime Arrangements in Timor Sea (CMATS) Treaty declared void ab initio. The termination of CMATS results in automatic Termination of Timor Sea Treaty governing petroleum operations in the JPDA, and in effect the Production Sharing Contract (PSC). In view of the uncertainty arising out of arbitration proceedings, the Joint Venture (JV) had submitted its request to ANP for termination of PSC without claim or penalty. ANP, however rejected the claim of the JV and delivered its notice to terminate the PSC imposing Contractors Liability upon Termination. JV, while accepting the termination requested for negotiation for amicable settlement of contractor’s liabilities upon termination which is still under consideration.

J MAHARASHTRA NATURAL GAS LIMITED (MNGL)

Maharashtra Natural Gas Ltd. (MNGL), a Joint Venture Company (JVC), between BPCL and GAIL, has been incorporated in January, 2006, with authorized capital of Rs.100 Crore, for implementing the City Gas Distribution Project for supply of CNG/PNG to the household and automobile sector in the city of Pune & adjacent areas.

As on 31 March 2018, BPCL's equity shareholding is 22.5 percent amounting to Rs.22.50 Crore. GAIL's contribution is 22.5 percent, Maharashtra Govt. has since invested 5 percent through MIDC and balance 50 percent are held by IGL.

The following is the financial and physical Performance as on 31 March 2018.

(₹ in Crore)

Particulars	2015-16	2016-17	2017-2018
	Ap-March 2016	Ap-March 2017	Ap-March 2018
Sales Qty. in MMSCMs	162.78	188.94	223.024
Gross Revenue from operations	507.85	535.83	660.64
Other Misc. Income	6.66	0.76	0.50
Net Profit / (loss) after Tax	75.20	76.56	97.69

K GOA NATURAL GAS PVT. LIMITED (GNGL)

BPCL has signed a Joint Venture Agreement with GAIL for implementation of City Gas Distribution Project in the North Goa and formed a Joint Venture Company Goa Natural Gas Pvt. Ltd. on 50:50 basis. It is involved in Steam and hot water supply.

The GNGL was incorporated on 13 January 2017. So far BPCL has contributed Rs. 7.50 crore (31 March 2018) as Equity Contribution. It is registered at Registrar of Companies, Goa.

L PETRONET INDIA LIMITED (PIL)

Petronet India Limited (PIL), a Joint venture company, was formed as a non-government financial holding company to give impetus to the development of pipeline networks throughout the country. The purpose was to facilitate pipeline access on a common carrier principle, through its 3 joint ventures, Vadinar - Kandla (PVKL); Mangalore - Hasan-Bangalore (PMHBL); Kochi-Coimbatore - Karur (PCCKL) pipelines in Phase I and Bhatinda- Pathankot, Paradeep-Rourkela, Bina-Jhansi-Kanpur in Phase II.

New pipeline policy announced subsequently affected the future of this company as Private Sector Companies were allowed to undertake pipeline projects and Phase II was not implemented. PIL has no new projects in hand. The Board of PIL therefore felt that there was little possibility of future projects coming under PIL ambit, as the interested companies may like to put up their own pipelines. Therefore, promoter oil companies and other investors in PIL thought that continuation of PIL is not viable and accordingly winding up was proposed.

Ministry of Petroleum and Natural Gas vide their letter ref R-30011/1/2006-OR-I dated 20th September, 2013 has given approval for closure of Petronet India Limited, after disposing off the investments in the form of shares it holds in Joint Venture Companies, namely, Petronet CCK Ltd, Petronet MHB Ltd., and Petronet VK Ltd. in a fair and transparent manner, in accordance with the Shareholders' Agreement. Such shares have since been sold to BPCL, HPCL & IOCL/RIL respectively.

As on 31 March 2018, BPCL holds 16 percent of its paid up capital aggregating to ₹ 16 crore. Other shareholders are IOC, RIL, HPC and few FIs.

The following is the financial performance as at 31.03.2018.

(₹in Crore)

Particulars	2015-16	2016-17	2017-2018
	Ap-March 2016	Ap-March 2017	Ap-March 2018

Revenue from Operation	-	-	-
Other Income	14.08	6.21	2.90
Exceptional Items	-	61.47	-
Net Profit/(loss) after Tax	13.72	59.32	2.07

*Capital gains on liquidation of shares in PCKKL and PMHBL.

M AIR INDIA EXPRESS LIMITED (AIEL)

Air India Express is a wholly owned subsidiary of Air India. The registered office of the Company is at Old Airport, Santacruz (East), Mumbai and is headquartered in Kochi, Kerala. The Company provides domestic and international air transport services which includes mainly passenger and cargo services and other related services. The Company mainly operates in India Gulf and South East Asia.

Our safety and maintenance standards benchmarked as the best in industry. Our IATA-IOSA registration stands testimony to the quality and professionalism with which we serve our customers. The registration has been awarded after rigorous assessments of the operational management and control systems of the airline.

(a) Air India Express on-board Services

Air India Express services are a cut above the rest. Though Air India Express follows the market principles of a low cost carrier, we spare no effort in ensuring passenger comfort and quality of service while delivering affordable air travel to our customers. In contrast to other LCCs, Air India Express offers complimentary snacks, tea / coffee on board. Also included in Air India Express facilities are affordably priced a-la-carte meals which can be pre-booked online.

VISION: Become India's most efficient and preferred LCC on regional international routes and extending the Airline's reach to other potential markets over the long term. Constantly exceeding passenger expectations in terms of quality, convenience and comfort.

MISSION : Offer the best Flight schedules at the most competitive fares having clients' needs at the core of all corporate / strategic decisions. Pay paramount attention to safety, punctuality

and convenience of services. Constantly embrace technological advancements to upgrade services, systems and processes and increase value proposition to passengers, employees, travel partners, vendors and owners. Benchmark work practices / methods against best in industry and achieve the greatest levels of productivity from all assets. Develop and maintain adequate pool of competent and motivated employees. Grow and expand operations with focus on improving productivity & profitability complementing the parent company's operations

The Company has been making profit for the last three years.

N HOTEL CORPORATION OF INDIA LIMITED (HCIL)

Hotel Corporation of India Limited is a subsidiary of Air India Limited. The registered Office is situated at Old Airport Santacruz, Mumbai. It was incorporated on July 8, 1971 under the Companies Act, 1956, when Air India decided to enter the Hotel Industry in keeping with the then prevalent trend among world airlines. The objective was to promote tourism and catering and thus offer a better product to the passengers, both at the international airports and at other places of tourist interest. The authorized Share Capital of the Company Rs. 150.00 crores (Paid up – Rs 137.60 crores). Presently HCI operates 2 Hotels, one each at Delhi and Srinagar under the brand name 'Centaur' and 2 flight Kitchens, one each at Mumbai and Delhi under the brand name Chefair.

(a) VISION: The Company is committed to curtail its losses by implementing consistent and stringent measures for cutting the overall expenditure, thereby lowering its losses gradually. Various initiatives are being undertaken by the management for improving the operational performance of the Company and increasing the revenues leading to improved Financial performance

Subsequent to the disinvestment of three out of six units, the Company has been running its business with three units viz., Centaur Hotel Delhi Airport (CHDA) including Chefair Flight Catering, Delhi (CHDA), Centaur Lake View Hotel, Srinagar (CLVH), Chefair Flight Catering, Mumbai (CFCM). The Company is also operating its two Dining Facilities Centres (DFC), one at Air India Building, Mumbai and another one at GSD Complex at New Delhi. The business in the 3 units viz., CHDA(including CFCD), CFCM and CLVH were downsized as all these properties had to be upgraded to match the quality of five star hotels in the Industry. This has resulted in fall in the market share resulting in lower revenue, consequently resulting into lower fund available for renovation of these properties. Further, there has been uncertainty over the future of its two units viz., Chefair Flight Catering Mumbai (CFCM) and Centaur Hotel Delhi Airport (CHDA) including Chefair Flight Catering, Delhi (CHDA), due to demand

from MIAL and DIAL respectively to take over the property under their airport expansion project. In view of such uncertainty, these units could not be given on Management Contract to any party to earn Fixed revenue. Further, they could not be upgraded to match the standard of other Flight Kitchen/Five star properties due to lack of fund. With regard to Centaur Hotel Lake View, Srinagar, due to insurgency in the valley, the business of the unit has been affected to a great extent, resulting into lower revenue. All the above factors have resulted in a vicious circle of low revenue, no upgradation, resulting lower revenue. Thus, the Company has been unable to take advantage of the high growth potential of the Tourism Industry and various initiatives taken by the Government and had to continue to struggle for its survival. In view of all these factors, it has been difficult to plan and maintain a long-term strategy for revival of the Company.