**Chapter-Four**:

**Audit of Property, Plant, and Equipment and the Related Depreciation**

**4.1. Overview of property, plant and equipment**

The term property, plant and equipment (fixed assets) include all tangible assets with a service life of more than one year that are used in the operation of the business and are not acquired for the purpose of resale. Three major subgroups of such assets are generally recognized.

1. Land, such as property used in the operation of the business, has the significant characteristics of not being subject to depreciation.
2. Building machinery, equipment and land improvements, such as fences and parking lots, have limited service lives and are subject to depreciation.
3. Natural resources (wasting assets), such as oil wells, coal mines, and tracts of timber, are subject to depletion as the natural resources are extracted or removed.

Fixed asset constitute a significant proportion of the total assets of many organizations particularly those engaged in manufacturing activities. Audit of fixed asset is, therefore generally considered to be an important part of an independent financial audit. Though the number of transactions involving fixed assets is smaller in number, the amount involved in these transactions will be very high. Hence the auditor has to give more attention while auditing the transactions relating to fixed asset.

**4.2. Auditors’ objectives in auditing property, plant and equipment**

**The auditor’s objectives in the audit of fixed assets are**

1. Consider **internal control** over property, plant and equipments.
2. Determine the **existence** of recorded property, plant and equipment.
3. Establish the **completeness** of recorded property, plant and equipment.
4. Establish that the client has **ownership rights** to the recorded property, plant and equipments
5. Establish the **clerical accuracy** of schedules of property, plant, and equipment.
6. Determine that the **valuation or allocation** of the cost of property, plant, and equipment is in accordance with generally accepted accounting principles.
7. Determine that the **presentation and disclosures** of property, plant, and equipment, including disclosure of depreciation methods is appropriate.

In conjunction with the audit of property, plant, and equipment, the auditors also obtain evidence about the related accounts of depreciation expenses, accumulated depreciation, and repair and maintenance expenses.

 **4.3. Internal controls relating to fixed assets**

The auditor studies and evaluates the accounting system and the effectiveness of internal control relating to fixed assets. The auditor’s study and evaluation of internal control relating to fixed assets covers the following aspects:

1. Segregation and rotation of duties.
2. Authorization of acquisition, transfer and disposal of fixed assets
3. Maintenance and record of documents.
4. Accountability for and safeguarding of fixed assets.
5. Independent checks.
	* 1. **Segregation and rotation of duties:** The auditor has to see whether there is proper segregation of various duties relating to fixed assets such as
	* Authorization of acquisition and disposals
	* Execution of transactions relating to execution and disposals.
	* Recording of transactions
	* Physical custody of items.

The auditor also has to see whether the duties of various persons relating to fixed assets are rotated periodically or not.

 **2. Authorization of acquisition, transfer and disposal of fixed assets:**

* + - 1. The auditor has to check the internal control relating to capital budgeting. i.e., whether the proposal for capital expenditure has been received in time in the proper format, approved by the top management and whether it is properly communicated to the various departments after the approval.
			2. Whether a written authorization from a senior level of the management is included in the budget.
			3. Whether the organization have laid down proper procedures for acquisition of fixed assets i.e. for inviting quotations, selection of suppliers, approval of prices, payment terms, safeguard for timely delivery etc.
			4. Whether the purchases are made on the basis of competitive bids. And whether there is requirement for documenting the reasons for making purchases other than at lowest price.
			5. Whether the control over receipt of fixed assets are effective ie., whether the technical specifications of the assets received are verified with the purchase orders before accepting and if rejected whether the debit notes are raised promptly.
			6. Whether periodic comparisons of the actual expenditures of the fixed assets are compared with the capital expenditure budget and whether approval from the competent authority is received if there is a deviation form the budget.
			7. Whether there any system of getting prior approval from the competent authority in case of transfer of fixed assets from one department to another?
			8. Whether adequate controls exist for disposal of fixed assets i.e. with proper authorization, invitation of quotations, approval of prices, proper documentation etc

 **3. Maintenance of records and documents**

1. The auditor has to check whether the company maintains proper records of fixed assets including those items, which are fully depreciated.
2. Whether the organization maintains the record of assets given on lease or used by the organization but owned by others.
3. Whether a register containing title deeds of the assets are maintained properly.
4. Whether the title deeds or registration documents are kept in safe custody and verified periodically.
5. Whether the organization maintained a detail record of projects which are in progress.
6. Whether the expenditures incurred are properly allocated between capital and revenue.

**4. Accountability for and safeguarding of fixed assets**

1. Whether there is any system for identification of fixed assets.
2. Whether adequate safeguards are made to protect the fixed assets from fire, theft accessibility to unauthorized persons, and use of locks burglar alarms etc.
3. Whether the fixed assets are properly insured and the auditor has to check regarding the adequacy of the cover the time period, etc.
4. Whether the fixed assets are physically verified on a periodic basis including those assets lying with third parties.
5. Whether follow up action has been taken for the discrepancies between the record books and physical verifications.
6. Whether there is any system for identifying and reporting damaged, obsolete and idle fixed assets.

5**. Independent checks**:

The auditor has to see whether there is any internal audit for fixed assets and determining the coverage and effectiveness of the internal audit. The auditor has to examine the scope of the work of the internal auditors and their reports.

**Substantive procedures for fixed assets**

The auditor determines the nature timing and extent of substantive procedures relating to fixed assets after evaluating the effectiveness of internal controls. The procedures normally followed are the following

**(A). Examination of records and documents**.

1. Verify the opening balances from the previous years financial statements or ledger accounts.
2. Verify the additions made during the year from the approval of appropriate authority copies of purchase orders, invoices receiving reports, acknowledgement form the supplier and bank statement.
3. Verify the assets constructed during the year by examining work order records, statement of allocation and apportionments of costs, certificate of work performed, contractors bills, invoices of suppliers of materials, bank statement etc.
4. Verify the major repairs and maintenance to ensure no revenue expenditure related to the capital assets is included.
5. Verify the disposal or retirement of fixed assets by examining the approval of appropriate authority, quotations invited from buyers, contract with the buyer, copy of the sale bills, evidence of physical deliveries etc.
6. Examine whether the book values and accumulated depreciation of the fixed assets disposed or discarded are properly adjusted accounting the resulting gains or losses properly.
7. Verify the minutes of the board of directors, agreements, and correspondence with lawyers to identify any charges or encumbrances on the fixed assets.
8. Verify the arithmetical accuracy of the fixed asset records.
9. Verify whether the value shown in the financial statement is after charging adequate depreciation.
10. Examine the evidence of ownership of fixed assets.

## (B). Review or observation of a second verification

Though the physical verification is the duty of the management, the auditor can review or observe the verification by examining the documents relating to the physical verification.

The procedures followed are:

1. Review the instructions issued to the staff entrusted with the responsibility of physical verification and judges the appropriateness and adequacy of the instructions.
2. Assess the competence of the personnel conducting the physical verification.
3. Examine the frequency of the verification and verify whether it is reasonable in the circumstances of the case.
4. When direct physical verification is not possible examine any indirect evidence of the existence of the fixed assets.
5. Tests check the fixed asset record with the physical verification records.
6. Examine the appropriate follow up action taken for the discrepancies revealed by physical verification with the fixed asset records.
7. Examine whether appropriate adjustments have been made in the fixed asset records and financial accounts for obsolescence, damage, or other losses reveled by the physical verification.

## (C). Examination of Valuation and disclosure

1. Examine whether the fixed assets have been valued according to the generally accepted accounting principles.
2. Examine whether adequate depreciation have been provided.
3. Examine whether the fixed assets have been revalued in a systematic/ scientific/ appraisal basis considering the future life and the possibility of obsolescence.
4. Examine the basis on which the consideration has been approportionated to various assets when several assets have been purchased for a consolidated price.
5. Examine the relevant documents such as title deeds agreements etc in order to ascertain the extent of the shares of the organization when the organization owns assets jointly with others.

**(D).** **Analytical Procedures**: -The analytical procedures employed by the auditors in the audit of fixed assets are the following:

1. Compare the additions or disposals of fixed assets made during the year with the budgeted figures.
2. Compare the ratio of depreciation for the current year to the average book value of the fixed assets with the corresponding figures of the previous year.
3. Compare the amount of repairs and maintenance of the current year with the figures of the previous year.
4. Compare the ratio of actual capacity utilization with the installed capacity of the current year with the figures of the previous year.

**(E)**. **Obtaining Management Representation**

The auditor has to obtain an appropriate representation form the management concerning the fixed assets stating that the fixed assets shown in the balance sheet are arrived at after considering all capital expenditures on additions, eliminating the cost and accumulated depreciation relating to the items discarded, destroyed and disposed off and adequate depreciation has been provided for during the current year.

**4.4. Audit program for auditing fixed assets**

The following procedures are typical of the work required in many engagements for the verification of property, plant and equipments.

**A) Consider internal control over property, plant and equipment**

**1.** *Obtain an understanding of internal control over property, plant and equipment*

 Auditors may use written description, flow chart or internal control questionnaire to describe the nature of client’s internal control structure. After preparing description of internal control, the auditors will determine whether the controls as described to them have been placed in operation, whether there is appropriate segregation of duties and considered the misstatements that may occur.

***2.*** *Assess control risk and design additional tests of control for the assertions*

 *about property, plant, and equipment.*

Based on an understanding of the client’s internal control over property, plant and equipment, the auditors develop their planned assessed level of control risk for the various financial statement assertion assertions and obtain additional evidences of the operating effectiveness of the client’s controls by designating additional tests of control.

***3****. Perform additional tests of controls for those controls that the auditors plant to consider to support their planned assessed levels of control risk.*

As auditors obtain an understanding of the client’s internal control; certain tests of control are performed.

E.g. select a sample of purchase of plant and equipment to test the control related to authorization, receipts and proper recording of the transactions.

**4**. *Reassess control risk for each of the major financial statements assertions about property, plant, and equipments based on the results of tests of controls and, if necessary, modify substantive tests.*

The final step in the auditor’s consideration of internal control involves a reassessment of control risk based on the results of the tests of control. On the basis of the reassessed level of control risk auditor modify their planned program of substantive testing procedures for property, plant, and equipment assertions.

**B. Perform substantive tests of property, plant and equipments and related depreciation transactions and balances**

**The objective of major substantive testing procedures of property, plant and equipment balances are given in the following table.**

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| **Subjective Test** | **Primary audit objective to be addressed** |
| 1. Obtain a summary analysis of changes in property owned and reconcile to ledgers -The summary analysis shows the beginning balances of property, plant, and equipment, additions to and/or retirement from property, plant, and equipments and ending balances of property plant and equipments. Auditors reconcile subsidiary ledgers with the Controlling accounts
 | Clerical accuracy |
| 1. Vouch additions to property, plant and equipment during year – The vouching process utilizes a working paper analysis of the general ledger controlling accounts and includes the tracing of entries through the journal to original documents such as contracts, construction work orders, invoices canceled checks authorization by appropriate individuals
2. Make physical inspection of major acquisitions
* The auditors usually make a physical inspection of major units of plant and equipment acquired during the year under audit by comparing the physical assets with underlying records.
* Helps to maintain good working knowledge of the Client’s operations and also in interpreting the accounting entries for both additions and retirements.
 | Existence and rightvaluation or allocation |
| 1. Analyze repair and maintenance expenses accounts
* The auditors principal objective in in analyzing repair and maintenance expense accounts is to discover items that should have capitalized
* To determine that there is proper repair and maintenance charges, the auditors will trace the ledger expenditures to written authorizations for the transactions.
 | Valuation and allocation |
| 1. Investigate the status of property, plant and equipment
* Auditors investigate plant assets currently in use, plant assets not currently in use but expected to be used in the future operation (depreciate at normal rate); and plant assets dismantled, found to be unsuitable for future operating use(should be written down their net realizable value and should not be classified as plant assets.
 | Valuation and allocationPresentation and disclosure |
| 1. Test the client’s provision for depreciations
* Review and test management’s process of developing the estimate
* Review subsequent events or transactions bearing on the estimates
* Independently develop an estimate of the amounts to compare to management’s estimates
1. Investigate potential impairments of property, plant, and equipments - Whenever events or changes in circumstances indicate that the carrying amount of long lived assets may not be recoverable ie if the sum of the expected future cash flows from the assets is less than its carrying amounts, an impairments loss is recognized.
 | Valuation and allocation |
| 1. Investigate retirement of property, plant and equipment during the year
* The principal purpose of this procedures is to determine Whether any property has been replaced, sold, dismantle or abandoned without such actions being reflected in the Accounting records.
1. Examine evidence of legal ownership
* To determine that plant assets are property of the client, the auditors look for such evidences as a deeds, title, insurance policy, property tax bills, receipts, for payments to mortgages and fire insurance policies.
1. Review rental revenues-rental revenues from land, building, equipments, machinery, and so on should be reviewed and the party responsible to pay cost of electricity, water, telephone should be reconciled against with provisions of utility expenses.
 | Existence and right |
| 1. Examine lease agreements on property, plant and equipments i.e. lease to and/ or form other party. The auditors should carefully examine lease agreements to determine whether the accounting for assets involved in proper (in accordance with the requirements of GAAP)

E.G Capitalization of assets leased by the client company. 1. Perform analytical procedures for property, plant, and equipments
* Auditors may use trends and ratios to judge the reasonableness of recorded amounts for plant and equipments

e.g. - Cost of plant assets/ annual out put in dollar or  other units* Monthly repair and maintenance expense to yearly amounts
* Compare acquisition and retirements of current year to prior years.
 | Existence and rightCompletenessValuation or allocation |
| 1. Evaluate financial statements presentation and disclosure for property, plant and equipment and for related revenues and expenses.
* The balance sheet or accompanying notes should disclose balances of major classes of depreciable assets, accumulated depreciation, method(s) for computing depreciation, base of valuation, property pledged and property not in current use.
 | Presentation and disclosure |

**4.5 Auditors perspective towards depreciation**

Depreciation is the decrease in the value of the asset due to wear and tear, obsolescence, lapse of time etc. Fixed assets are to be disclosed in the balance sheet at their cost or at the revalued amount less depreciation

 Determining the annual depreciation expense involves two rather arbitrary decisions by the client company: **first,** an estimate of the useful economic lives of various groups of assets, and **second,** a choice among several depreciation methods, each of which would lead to a different answers. The wide range of possible amounts for annual depreciation expense because of these decisions by the client suggests that the auditors should maintain a perspective of looking for assurance of overall reasonableness. Specifically, overall tests of the year/s depreciation expense are of special importance.

Accordingly, the auditor has to examine whether adequate depreciation has been provided in the books in respect of all depreciable assets according to the provisions of the relevant statutes.

While auditing depreciation, the auditor has to examine the following points in respect of depreciation

1. Whether adequate depreciation has been provided during the current year.
2. Whether the depreciation has been calculated by appropriate methods.
3. Whether appropriate method has been selected after considering the useful life of the asset and salvage value.
4. Whether the method of calculating depreciation has been consistent over the years.
5. Whether any change in the method has been properly disclosed in the financial statements.
6. Whether accumulated depreciation in respect of discarded or disposed assets have been adjusted in the accumulated depreciation amount.
7. Whether depreciation has been provided properly on the assets added or disposed of during the current year.
8. Whether depreciation has been provided on revalued assets
9. Whether the depreciation has been properly disclosed in the financial statements.

**4.5.1 The auditors’ objectives in auditing depreciation**

When evaluating the reasonableness of depreciation (with accounting estimate), auditors use one or more of the following three basic approaches.

 1). Review and test management’s process of developing the estimates

 2). Review subsequent events or transactions that might have bearing on the estimate to management’s estimate

 3). Independently develop an estimate of the amounts to compare to managements estimate.

**4.5.2 Audit program-Depreciation expense and accumulated depreciation**

The following outlines of substantive tests to be performed by the auditors in reviewing depreciation are stated in sufficient detail to be largely self-explanatory.

1. Review the depreciation policies set forth in company manuals or other management directives. Determine whether the methods in use are designed to allocate costs of plant and equipment assets systematically over their service lives.
	1. Inquire whether any extra working shifts or other conditions of accelerated production are present that might warrant adjustment of normal depreciation rates.
	2. Discuss with executives the possible need for recognition of obsolescence resulting from technology or economic developments.
2. Obtain or prepare a summary analysis of accumulated depreciation for the major property classification as shown by general ledger accounts, listing beginning balances, provisions for depreciation during the year, retirements, and ending balances.
3. Compare beginning balances with the audited amounts in last year/s working papers.
4. Determine that the totals accumulated depreciation recorded in the plant and equipment subsidiary records agree with the applicable general ledger controlling accounts.

**3)**. Test the provisions for depreciations

**(a).** Compare rates used in prior years and investigate any variance.

**(b)**. Test computations of depreciations for provisions for a representatives number of units and trace to individuals records in the property ledger. Be alert for excessive depreciation on fully depreciated assets.

**(c).** Compare credits to accumulated depreciation accounts the year’s depreciation provisions with debits entries in related depreciation expenses accounts.

**4)**. Test deductions from accumulated depreciation for assets retired.

**(a)** Trace deductions to the working paper analyzing retirements of assets during the year.

**(b)** Test the accuracy of accumulated depreciation to date of retirements.

**5).** Perform analytical procedures for depreciation

(a) Compute the ratio of depreciation expenses to total cost of plant and compare with prior years.

(b). Compare the percentage relationships between accumulated depreciation and related property accounts with that prevailing in prior years. Discuss significant variations from normal depreciation program with appropriate members of managements.