

Guidance Note
on
Cost Accounting Standard
on
Repairs and Maintenance Cost
(CAS-12)



Issued by

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(A Statutory Body under an Act of Parliament)

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Foreword by President

The Institute is committed to provide technical guidance for the capacity building of its members. Two standard setting bodies of the Institute viz. CASB and CAASB are working very diligently to develop Cost Accounting Standards & Guidance Notes thereon, and Cost Auditing and Assurance Standards respectively with the constructive suggestions and comments from the members of the Institute on the exposure drafts issued by these bodies. The practical experience earned by the members can be of immense use, particularly in developing the guidance notes by these bodies.

I am pleased to note that the Cost Accounting Standards Board of the Institute in its 81st meeting held on 23rd December 2015 approved the release of Guidance Note on Cost Accounting Standard on Repairs and Maintenance Cost, which provides much needed guidance on treatment of repairs and maintenance cost in determination of cost of products and services. Repairs and Maintenance Cost is one of the important elements for determination of Cost of Products and Services.

I take this opportunity to record my appreciation for the Chairman, Cost Accounting Standards Board and its members for bringing out this guidance note for the benefits of members and Industry in the present form. CASB is making a consistence progress and I am hopeful that it will continue to come out with useful publications for the members of the profession.

I am confident that this Guidance Note would help the practitioners, industry and other stakeholders to understand and implement various principles and methods enshrined in the Cost Accounting Standard on Repairs and Maintenance Cost.

(CMA P.V. Bhattad)
5th February 2016



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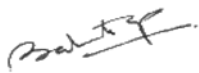
PREFACE

The Cost Accounting Standards Board in its 81st meeting held on 23rd December 2015 approved the Guidance Note on Cost Accounting Standard (CAS)-12 on Repairs and Maintenance. This Guidance Note deals with the principles and methods as provided in the Cost Accounting Standard on Repairs and Maintenance Cost and practical aspects in connection with determination of Repairs and Maintenance Cost for products and services. This is towards the efforts of the Board to fulfil the need for the Guidance Note on various Cost Accounting Standards developed by the Institute of Cost Accountants of India.

I sincerely thank all the members of the Cost Accounting Standards Board for their valuable contribution in finalization of this Guidance Note. I would like to place on record the whole hearted support extended to Cost Accounting Standards Board by CMA P.V. Bhattad, President and CMA Manas Kumar Thakur, Vice President and CMA B.B. Goyal, Advisor (ICWAI-MARF).

I also acknowledge the efforts put in by CASB Secretariat headed by CMA J.K. Budhiraja, Senior Director (Technical) and Secretary-CASB and CMA M L Mehta (Advisor-CASB), in bringing out this Guidance Note. I am confident that the Secretariat will keep up the scorching pace set so far and releases the Guidance Note on the remaining CAS in near future.

I am confident that this Guidance Note would be well received by members, practitioners and other professionals.



CMA Balwinder Singh
(Chairman, CASB)

Date: 18th January 2016



List of Contents

Serial	Chapter	Page
1	Introduction	2 - 4
2	Definitions	5
3	Principles of Measurement	6 - 15
4	Assignment of Cost	16 -17
5	Presentation	18
6	Disclosures	19 - 21

Serial	Annexure	Page
I	Cost Accounting Standard- 12 on Repairs and Maintenance Cost	22 - 28



**Guidance Note on Cost Accounting Standard on
Repairs and Maintenance Cost (CAS-12)**

The Council of the Institute of Cost Accountants of India has issued the Cost Accounting Standard -12 (CAS-12) on Repairs and Maintenance Cost which lays down a set of principles and methods of classification, measurement and assignment of Repairs and Maintenance Cost for determination of the cost of product or service and the presentation and disclosure in the cost statements. The Cost Accounting Standards have been set in **bold italic type** and reference number of the standard has been retained.

The Guidance Note deals with principles and methods as provided in the CAS-12 and practical aspects in connection with the determination of Repairs and Maintenance Cost for a product or service. In the preparation of cost statement and its attestation, Repairs and Maintenance cost should be determined with reference to CAS-12.

The Ministry of Corporate Affairs have notified The Companies (Cost Records and Audit) Rules, 2014.

As per rule 3, for the purposes of sub-section (1) of Section 148 of the Companies Act, 2013, the class of companies including foreign companies defined in clause (42) of Section 2 of the Companies Act, 2013 (18 of 2013) engaged in the production of the goods or providing services specified in the Table A and Table B to the above referred Rules have to maintain cost records in Form CRA-1 annexed to above rules having an overall turnover from all its products and services of rupees thirty five crore or more during the immediately preceding financial year.

Form CRA-1 annexed to the “Companies (Cost Records and Audit) Rules, 2014 specified various items of costs which are to be included in the books of accounts. Para 5 of Form CRA-1 of the above Rules deals with Repairs and Maintenance. These are to be applied while maintaining cost records.

As per proviso to Section 148 (3) of the Companies Act 2013, the auditor conducting the cost audit shall comply with the Cost Auditing Standards issued by the Institute of Cost Accountants of India with the approval of Central Government.

As per **Cost Auditing Standard 103** on “**Overall Objective of the Independent Cost Auditor and Conduct of an Audit in accordance with Cost Auditing Standards**”, in its objective states that the cost auditor conducting cost audit shall comply with the Cost Accounting Standards (CAS) and Generally Accepted Cost Accounting Principles (GACAP) issued by the Institute of Cost Accountants of India.



CHAPTER 1:

Introduction

Repairs & Maintenance activities comprise of all actions which have the objective of retaining or restoring an equipment in or to a state in which it can perform its required function and all routine recurring work required to keep the equipment in such condition that it may be continuously used, at its original or designed capacity and efficiency for its intended purpose. Thus, the primary goal of maintenance is to avoid or mitigate the consequences of failure of the equipment.

Repairs are undertaken to restore the equipment to the state of its original or designed capacity and efficiency for its intended purpose whereas the Maintenance is undertaken at regular interval to preserve or retain operational status of the equipment for its originally intended use.

Repairs and Maintenance are classified as under:

By Nature:

- a) Preventive or Routine
- b) Predictive maintenance
- c) Corrective maintenance
- d) Total Productive Maintenance (TPM)
- e) Break down

By Size:

- a) Minor repair
- b) Major repair/ Overhaul

By class of Asset:

- a) Building repair (factory building, Administrative Building, boundary wall repair)
- b) Machinery repair (boiler repair, turbine repair, etc)
- c) Furniture and fixture repair
- d) vehicle repair
- e) Computer repair

By workshop type:

- a) Mechanical Repairs and Maintenance (repair carried out by Mechanical Workshop for machine repairs)



- b) Electrical Repairs and Maintenance (electrical repair carried out by Electrical Deptt for electrical fitting)
- c) Civil Repairs and Maintenance (repair of building by Civil Works Deptt)
- d) Instrumentation Repairs and Maintenance.

Preventive (Routine) Maintenance.

Preventive/ Routine maintenance is described as maintenance of equipment or systems before fault occurs. It is carried out to keep equipment working. It includes partial or complete overhauls at specified periods, such as oil changes, lubrication and so on. Activities such as changing lubricant are based on time, like calendar schedule or equipment run time. For example, oil in the vehicles is changed every 3,000 to 5,000 miles/ kms travelled. No consideration is given to the actual condition and performance capability of the oil. In some cases preventive maintenance is necessary as required under related regulations such as annual/bi-annual boiler inspection.

Planned (Predictive /Corrective) Maintenance

Predictive maintenance:

Predictive maintenance differs from preventive maintenance as its basis is maintenance needs on the actual condition of the machine, rather than on some preset schedule. For example If, the operator of the car ignored the vehicle run time and had the oil analyzed at some point in time to determine its actual condition and lubrication properties, he may be able to postpone the oil change until the vehicle had travelled 10,000 miles/ Kms.

Corrective maintenance

Corrective maintenance is designed to preserve and restore equipment reliability by replacing worn out components before they actually fail. This activity may consist of repairing, restoration or replacement of components.

Total Productive Maintenance (TPM) TPM is an integrated approach to repairs and maintenance of equipment encompassing preventive, planned and corrective maintenance. TPM is carried out by the operator but the related cost is not be allocated.

The repair or overhaul of an asset which results in restoration of intended condition of the asset would also be a part of Repairs and Maintenance activity.



Major overhaul is a repairs work carried out to substantially restore the intended working condition of the assets.

Repair & Maintenance Cost:

Repairs & Maintenance costs are incurred in:

- (a) Carrying out routine maintenance work as a preventive measure. Expenditure incurred in this situation are generally of routine and minor nature.
- (b) Undertaking the restoration activity due to breakdown of equipment.

Thus, Repairs and Maintenance cost is the cost of all activities required to restore the asset to a condition to perform its function at intended capacity and efficiency. Repairs and Maintenance Cost includes cost of:

- repair materials: rivets, sheets, pipes , welding electrodes
- spares: parts/ subassemblies of equipment
- consumable stores: oil, lubricants, gas , cotton waste, grease
- supervision and management: crew employed for supervision and management
- utilities: power, water and steam
- cost of equipment used for repairs work: share of usage cost for crane , fork lift trucks
- allocated costs from other service cost centres

Parts of some equipment may require replacement at regular intervals. For example, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe.

Costing system shall make appropriate classifications of repairs and maintenance costs. When repair and maintenance cost is misclassified, it can result :

- (a) Under-charge to the cost object to which the direct cost rightfully belongs, and (b) over-charge of cost to the cost objects that are improperly allocated some of this cost.

Measurement of Repairs and Maintenance Costs involves determining the basis of cost measurement and establishing criteria for use of alternative cost measurement techniques. Examples of cost measurement are:

- Historical cost
- Actual or standard cost



CHAPTER 2:

Definitions

Cost Object: *This includes a product, service, cost centre, activity, sub-activity, project, contract, customer or distribution channel or any other unit in relation to which costs are ascertained.*¹

Direct Expenses: *Expenses relating to manufacture of a product or rendering a service, which can be identified or linked with the cost object other than direct material cost and direct employee cost*².

Finance Costs: *Costs incurred by an enterprise in connection with the borrowing of funds.*

Imputed Costs: *Hypothetical or notional costs, not involving cash outlay, computed for any purpose.*³

Normal capacity: Normal Capacity is the production achieved or achievable on an average over a number of periods or seasons under normal circumstances taking into account the loss of capacity resulting from planned maintenance.⁴

Production overheads: *Indirect costs involved in the production process or in rendering service*⁵.

Repairs and Maintenance cost: *Cost of all activities which have the objective of maintaining or restoring an asset in or to a state in which it can perform its required function at intended capacity and efficiency.*

Standard Cost: *A predetermined cost of resource inputs for the cost object computed with reference to set of technical specifications and efficient operating conditions*⁶.

² Adopted from CAS 10 paragraph 4.4

³ Adapted from CAS 1 Para 6.5.13

⁴ Adapted from CAS 2 paragraph 4.4

⁵ Adapted from CAS-1 Para 6.3.3 and 6.3.4

⁶ Adopted from CAS 10 paragraph 4.9



CHAPTER 3:

Principles of Measurement

5. Principles of Measurement:

5.1 Repairs and maintenance cost shall be the aggregate of direct and indirect cost relating to repairs and maintenance activity.

Repairs and maintenance cost is the cost of resources consumed in repair and maintenance activities. Resources consumed are in terms of employee costs, utilities, stores and spares, consumable, indirect expenses (repair equipment costs, allocated cost from other cost service centres) and the like. Resources such as spare parts, stores and direct employee cost which are easily identified with a repair job are direct cost of the repair job. Supervisory /other employees cost and consumables which cannot be easily identified with a specific job on economic consideration are indirect costs and treated as departmental overhead.

For various types of repairs and maintenance activities repairs and maintenance cost are accumulated as under:

Planned maintenance jobs/ Annual shutdowns/periodic overhaul etc:

These carry a standard bill of materials to be used for the maintenance jobs, parts to be replaced during the planned maintenance, number and skill category of maintenance employees required, heavy maintenance equipment like cranes to be used and other resources. Actual cost of these resources is booked against the planned maintenance jobs.

Break down maintenance jobs:

A work order is generated and all issues of materials, time of employees and other resources are booked against the work orders to provide cost of individual maintenance job. The maintenance employees in some entities are treated as fixed resources and no attempt is made to book their time against maintenance jobs. The allocations to cost centres are based on the principle of “readiness to serve” with the estimate of demand from various cost centres prepared at the time of manpower planning acting as the base for allocation of manpower costs.

Maintenance jobs often require the use of heavy equipment such as cranes, hoists etc. The costs of these maintenance equipments are accumulated equipment wise and are charged to maintenance jobs based on recorded usage in hours or to cost centres based



on estimated usage envisaged at the time of planning the capital expenditure on these items of equipment

The measurement of these resources consumed is to be determined in terms of relevant cost accounting standards, viz: Material Cost (CAS-6); Employees Cost (CAS-7); Cost of Utilities (CAS-8); Depreciation and Amortisation (CAS- 16).

As per CAS-6, the valuation of receipt of materials is to be based on the terms and conditions stated in the purchase /supply order, source of supply i.e. indigenous or imported etc. It is to be valued at purchase price including duties(import duty) and taxes, freight inwards, insurance, and other expenditure directly attributable to procurement (net of trade discounts, rebates, taxes and duties refundable or to be credited by the taxing authorities) that can be quantified with reasonable accuracy at the time of acquisition. The consumption of material is to be valued at issue rate adopted i.e. First in First out, last in first out, weighted average. The basis adopted has to be followed consistently.

Direct and Indirect employee cost is to be measured in term of Cost Accounting Standard CAS-7 (Employee cost). Employee cost relating to Repairs and Maintenance Department shall be the gross pay and allowances payable. It shall take into account the employee's salary including all allowances and other benefits, such as Employer's contribution to EPF, FPS, ESIS, holiday pay, gratuity payable, bonus etc. Other benefits include free furnished residential accommodation or house rent allowance, leave travel concession, reimbursement of medical expenses for self and family, personal accident insurance, etc.

The cost of each utility consumed by Repairs and Maintenance cost centre is to be accumulated and measured separately. For purchased utility/services, it is as per supplier's bill, if directly identifiable with utility. There can be a mix of source for a given utility. It may be valued at weighted average rate.

Credit is to be given for any discount, rebate, taxes and duties refundable etc.

5.2 Cost of in-house repairs and maintenance activity shall include cost of materials, consumable stores, spares, manpower, equipment usage, utilities, and other resources used in such activity.

As detailed in Chapter 1, repairs and maintenance departments are set up to carry out in house repairs and maintenance activities. These departments are created to attend to in-house electrical, mechanical, civil works repairs, etc. Some large production facilities have a captive workshop where parts are turned, machined or otherwise repaired. These



workshops also produce some spare parts. The workshop is treated as similar to production cost centre with job orders being opened for production jobs and work orders for repair jobs.

The costs of the workshop which comprises costs of materials, employee, equipment and other resources are accumulated by jobs/ work orders. Certain repairs and maintenance, such as periodical preventive maintenance and breakdown maintenance are carried out in-house throughout the year.

Preventive maintenance costs are generally booked through standing orders/work orders which record all issues of material, engagement time of maintenance employees and other resources used. Alternatively Preventive Maintenance schedules are prepared which carry a standard bill of materials and standard usage of maintenance employee's time and other resources and these are accounted for on number of jobs completed. Actual usage of materials, time and other resources are recorded in detail.

Planned maintenance includes annual shutdowns, periodic overhaul etc. These carry a standard bill of materials to be used for the maintenance jobs, parts to be replaced during the planned maintenance, number and skill category of maintenance employees required, heavy maintenance equipment like cranes to be used and other resources. Actual cost of these resources is booked against the planned maintenance jobs.

The above elements of cost consumed (viz material, consumable stores, spares, employee cost, equipment usage, utilities etc) are to be measured as stated in paragraph 5.1 above .Equipment usage – depreciation of the fixed assets of the repair department are measured on the basis of straight line/written down value method as per accounting policy.

5.3 Cost of repairs and maintenance activity carried out by outside contractors inside the entity shall include charges payable to the contractor and cost of materials, consumable stores, spares, manpower, equipment usage, utilities, and other costs incurred by the entity for such jobs.

Sometimes contractors are engaged to carry out repair and maintenance activity inside the entity. As per agreement/purchase order, contractor is to provide services for the repair job. Materials, consumable stores, spares, manpower, equipment usage, utilities etc required for the repair job may be provided by the entity. Cost of such repair jobs will



be charges paid to contractor and cost of other material, consumable, spares, manpower, equipment usage, and utilities. A work order is issued and cost is accumulated under the work order. Various Elements of cost are to be measured as detailed under paragraph 5.1. The maintenance jobs may also be outsourced. The outsourcing may be of the entire job or may take the form of a contract for supply of labour. In the former case, bill for completed jobs are generally available and identified with such jobs. When outsourcing takes the form of a contract for supply of labour, no time recording by jobs is generally available and only deployment by department or cost centre is available.

In many entities, maintenance labour is almost completely outsourced and only a small no. of specialized employees are retained on the company's rolls.

5.4 Cost of repairs and maintenance jobs carried out by contractor at its premises shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto, net of discounts (other than cash discount), taxes and duties refundable or to be credited. This cost shall also include the cost of other resources provided to the contractors.

When a contractor is engaged to carry out repairs and maintenance job at the contractor's premises and is paid the charges as per agreement/purchase order, he will be paid the agreed price including duties and taxes and other expenditure attributable thereto, net of discount (other than cash discount), taxes and duties refundable or credited. For example on any spare parts, any VAT/Import duty is refundable; it will be adjusted against the payment to be made to contractor. If any other resources are provided by the entity, the cost of repair job will be measured in terms of payment made to the contractor plus the cost of any other resources supplied by the entity like special electrodes. Measurement of other resources will be as detailed under paragraph 5.1 and 5.2.

5.5 Cost of repairs and maintenance jobs carried out by outside contractors shall include charges made by the contractor and cost of own materials, consumable stores, spares, manpower, equipment usage, utilities and other costs used in such jobs.

If a repairs and maintenance job is carried out by an outside contractor, he will be paid as per agreement including the cost of his own materials, consumable stores, spares,



manpower, equipment usages, etc. The cost of repairs and maintenance job will be as per contractor's invoice.

Maintenance of specialized equipment is entrusted on a turnkey basis to the vendor of the equipment or other specialized maintenance outfits. This may involve costs of travel of technicians besides bill for services from the agency rendering the services.

Annual Maintenance contracts (AMC) for specialized equipment take the form of only servicing or servicing with parts. The AMCs specify the number of routine servicing calls that will be made in a year. Where a single machine is covered by an AMC, costing becomes simple. But where a fleet of machines are covered by a single AMC, allocation of costs to cost centres can be made on the basis of number of machines in each cost centre.

5.6.1 Each type of repairs and maintenance shall be treated as a distinct activity, if material and identifiable.

Each type of repairs and maintenance such as civil, mechanical and electrical for an equipment should be treated as a distinct activity, if material and identifiable. The following criteria may be applied for determining the materiality.

- The absolute amount – the larger the amount , the more likely that it is material
- The amount of cost of a cost object compared to the amount of repairs and maintenance cost under consideration – the greater the proportion of the considered amount of repairs and maintenances versus the cost of cost object, the more likely it is material.
- The relationship of repairs and maintenance cost with cost object
- The cumulative impact of individual items - do they offset one another or do they accumulate in one direction (increase or decrease)
- The cost of determining the repairs and maintenance cost

5.6.2 Cost of repairs and maintenance activity shall be measured for each major asset category separately.

The cost of repairs and maintenance is to be identified class of asset wise besides nature and size as dealt above. Repairs and maintenance should be identified for each major asset separately to have effective cost control asset wise such an information facilitates determining whether it is worth to carry out repair of the related asset or it needs



replacement. The cost of repairs and maintenance assets should be measured in terms of each major asset category as detailed below.

For example:

- (a) Building repair (factory building, administrative building, boundary wall repair)
- (b) Machinery repair (boiler repair, turbine repair, etc)
- (c) Furniture and fixture repair (production/administrative/marketing etc)
- (d) Computer repairs
- (e) Vehicle repairs

5.7 Cost of spares replaced which do not enhance the future economic benefits from the existing asset beyond its previously assessed standard of performance shall be included under repairs and maintenance cost.

Based on the inspection of equipment to be repaired, a list of parts which have worn out, is prepared. Worn out parts are replaced and the cost of the same is included in repairs and maintenance cost. The standard lays down that the cost of spares replaced is to be included under repairs and maintenance cost of equipment provided it enables maintaining the operating capability of the equipment. If the future economic benefits expected to arise from the existing assets are in excess of the previously assessed standard of performance, it is to be included in the cost of asset (capitalized) and will not form part of repairs and maintenance cost. For example a steel plant treats relining expenses other than Blast Furnace relining as an expense in the year in which these are incurred, and whereas Blast Furnace lining are capitalized and its cost depreciated with the cost of Blast Furnace.

5.8 High value spare, when replaced by a new spare and is reconditioned, which is expected to result in future economic benefits, the same shall be taken into stock. Such a spare shall be valued at an amount that measures its service potential in relation to a new spare which amount shall not exceed the cost of reconditioning the spare. The difference between the total of the cost of the new spare and the reconditioning cost and the value of the reconditioned spare should be treated as repairs and maintenance cost.



Whenever a high value spare is replaced at the time of repair, old high value spare is to be examined whether it can be reconditioned and its cost of reconditioning will be commensurate with future economic benefits.

Example: The cost of new spare is Rs. 100 lacs and expected life is 10 years. The value of the existing spare after reconditioning is estimated at Rs. 25 lacs, and its life is 2 years. Thus the value of reconditioned spares equals $2/10 * 100 = \text{Rs } 20$ lacs. It shall be taken into stock at Rs 20 lacs and repairs and maintenance cost shall be Rs 105 lacs.

The accounting entries would be as below:

Repairs & Maintenance: Dr. 100.00 lacs
Inventory (Spares): Cr. 100.00 lacs
(Being spare part issued replacing the old spare)

Repairs & Maintenance: Dr. 25.00 lacs
Cash: Cr. 25.00 lacs
(Being cost of repair & reconditioning of old spare)

Inventory (Spares): Dr. 20.00 lacs
Repairs & Maintenance: Cr. 20.00 lacs
(Being Reconditioned Spare taken to stock)

Rs 100 lacs + Rs 25 lacs- Rs 20 lacs= 105 lacs)

If the value of the existing spare after reconditioning is estimated at Rs 15 lacs with a life of 2 years, then in that case it shall be taken into stock at Rs 15 lacs only which is a true measure of its service potential which cost should not exceed the cost of reconditioning the spare and be compatible with the period of its service potential.

5.9 The cost of major overhaul shall be amortized on a rational basis.

Major overhaul is undertaken periodically or as and when need arises. The cost of major overhaul should be amortized over its useful life benefits expected to accrue.

5.10 Finance costs incurred in connection with the repairs and maintenance activities shall not form part of repairs and maintenance costs.



Finance costs are interest, processing fee, commission and commitment charges and the like on borrowed funds. Finance costs are excluded from repairs and maintenance cost.

5.11 Repairs and maintenance costs shall not include imputed costs.

Imputed cost does not involve at any outright expenses or cash outlay. As such it does not appear in the financial books. No imputed cost for repair and maintenance work for which no cash out lay is involved shall be taken into account. For example spare parts received as insurance spares and capitalized with the cost of plant/machinery shall not be assigned any imputed cost at the time of issue as they are depreciated with the cost of equipment.

5.12 Price variances related to repairs and maintenance, where standard costs are in use, shall be treated as part of repairs and maintenance cost. The portion of usage variances attributable to normal reasons shall be treated as part of repairs and maintenance cost. Usage variances attributable to abnormal reasons shall be excluded from repairs and maintenance cost.

If standards have been fixed for repair and maintenance, variance analysis shall be carried out both for price variance and usage variance. The variance analysis enables management to observe the extent to which actual repairs and maintenance expenses are differing from estimates.

5.13 Subsidy / Grant / Incentive or amount of similar nature received / receivable with respect to repairs and maintenance activity, if any, shall be reduced for ascertainment of the cost of the cost object to which such amounts are related.

Subsidy / grant/incentive received/receivable for Repairs and Maintenance should be adjusted against repairs and maintenance cost.

5.14 Any repairs and maintenance cost resulting from some abnormal circumstances, if material and quantifiable, shall not form part of the repairs and maintenance cost.



Equipment may get damaged due to abnormal circumstances such as major fire, flood and similar other events. Repairs and maintenance cost incurred under such circumstances, if material and quantifiable shall not form part of the repairs and maintenance cost. Materiality has not been defined and it will depend upon situation to situation.

5.15 *Fines, penalties, damages and similar levies paid to statutory authorities or other third parties shall not form part of the repairs and maintenance cost.*

Penalties/damages are levied by the statutory authorities for non-compliance with statutory requirements/delay. A penalty imposed by a regulatory authority for wrongful construction or damages paid to third party for the loss caused due to improper working of equipment, accident compensation to workers, non-compliance with rules of civic authorities such as stacking material at unauthorised places, should not be included in repairs and maintenance cost.

Penalties/Damages are an abnormal cost and do not form part of the Repairs and maintenance cost. These are charged to Profit & Loss account and will form part of reconciliation statement.

5.16 *Credits/ recoveries relating to the repairs and maintenance activity, material and quantifiable, shall be deducted to arrive at the net repairs and maintenance cost.*

If any credit, material and quantifiable, is available relating to repairs and maintenance, it is to be reduced from the repairs and maintenance cost of the object.

5.17 *Any change in the cost accounting principles applied for the measurement of the repairs and maintenance cost should be made only if, it is required by law or for compliance with the requirements of a cost accounting standard, or a change would result in a more appropriate preparation or presentation of cost statements of an organisation.*

Various cost elements of repairs and maintenance such as materials, stores and spares, employees cost etc shall be measured in accordance with the related cost accounting standards. Cost accounting principles applied for measurement of the cost elements of



repairs and maintenance expenses should be followed consistently. These should be changed if required by law, or for compliance with cost accounting standards or for better presentation of cost statement.



CHAPTER 4:

Assignment of Costs

6. Assignment of costs

6.1 Repairs and maintenance costs shall be traced to a cost object to the extent economically feasible.

Direct tracing of Repairs and maintenance cost is the process of identifying and assigning costs that are specifically associated with cost object economically. It involves establishing a suitable procedure to directly trace/ identify and record the same by the cost object. Cost Object is a logical sub-unit for collection of cost. Thus cost object may be any product service, contract, project, activity or any other work unit for which a separate cost measurement is desired.

Invoice/repair orders are the source documents indicating details of repair and maintenance job/asset wise. Various items of **Repairs and maintenance costs** are first accumulated according to nature of expenditure. These are arranged according to department or function. The expenses which are capable of being identified with a specific jobs/department are directly assigned. The expenses which cannot be assigned directly to specific departments are assigned on suitable basis.

Actual usage of materials, time (man hours) and other resources are recorded in detail in the job order and allocated to various repair jobs. Once **Repairs and maintenance costs** have been accumulated and measured, these are to be assigned to a cost object.

Preventive maintenance costs are also accumulated job wise and assigned based on standard usage. Where the machines in various cost centres require different levels of service or vary in cost, a suitable allocation base has to be evolved based on such differences.

Major repair job shall be prorated over expected benefit/ useful life of the equipment with the difference appearing in reconciliation statements of the respective years.

6.2 Where the repairs and maintenance cost is not directly traceable to cost object, it shall be assigned based on either of the following two principles;

i) Cause and Effect - Cause is the process or operation or activity and effect is the incurrence of cost.



ii) Benefits received – overheads are to be apportioned to the various cost objects in proportion to the benefits received by them.

A cost is assignable or chargeable to one or more cost objects on the basis of relative benefits received or other equitable relationship. Assigning of costs shall be carried out on a reasonable and consistent basis. Testing reasonableness shall take into account the purpose of the cost information and the economic feasibility of accumulating and assigning it.

Assigning costs on a cause-and-effect basis shall be considered for costs that cannot be directly traced to cost object/outputs. Following criterion shall be considered. The costs of the department may be assigned to other departments on a cause-and effect basis through a -two step process. In the first step, the costs are assigned to the activities of the department. In the second step, the costs of these activities are further assigned to other departments based on their usage of the services.

Assigning Cost - Benefit received:

Standard provides for assigning of Repairs and maintenance cost to the various cost objects in proportion to the benefits received by them. Benefits received when measurable and traceable, provide guidance for assignment. The beneficiaries of the output of the cost pool shall be identified and costs allocated in proportion to the benefits received. Benefits received shall be interpreted as receiving of services by the activity represented by the cost object to which the costs are being assigned.

6.3 If the repairs and maintenance cost (including the share of the cost of reciprocal exchange of services) is shared by several cost objects, the related cost shall be measured as an aggregate and distributed among the cost objects as per principles laid down in Cost Accounting Standard – 3.

Repairs and maintenance cost (including the share of the cost of reciprocal exchange of services) shall be measured as discussed under paragraph 5. Such cost of repairs and maintenance shall be aggregated and distributed among cost objects as under:

- Unit of production
- Direct labour cost
- Direct labour hours
- Machine hours
- Predetermined base



Chapter 5

Presentation

7.1 Repairs and maintenance cost, if material, shall be presented in the cost statement as a separate item of cost.

As per paragraph 5 of the Form II of the Companies (Cost Audit Report) Rules, 2011 Repairs and maintenance cost has to be reflected as a separate line item in the cost statement, if material. Materiality has not been defined in the standard and may be determined as detailed in paragraph 5.6.1.

7.2 Asset category wise details of repairs and maintenance cost, if material, shall be presented separately.

Details of repairs and maintenance cost by class of asset shall be reflected in the cost records, if material. Cost Accounting Records Rules for various regulated industries viz., Fertilizers etc provide that repairs and maintenance cost should be grouped and reflected in the relevant cost statement as under:-

- (a) Building ;
- (b) Plant and equipment; and
- (c) Others

7.3 Activity wise details of repairs and maintenance cost, if material, shall be presented separately.

Repairs and maintenance cost shall be reflected in the cost records activity wise to have effective control if material.

**Chapter 6****Disclosures****8.1 Paragraph 8 “Disclosures” require the following disclosures:****8.1.1 *The basis of distribution of repairs and maintenance cost to the cost objects/ cost units.***

The basis of distribution of repairs and maintenance cost to the cost objects/cost units shall be recorded in the cost records/cost statement.

8.1.2 *Where standard cost is applied in repairs and maintenance cost, the price and usage variances.*

Paragraph 5.12 of the standard specifies that normal price and usage variance where standard costs are in use, shall be treated as part of the repairs and maintenance cost. Price and usage variance shall be reflected in the cost records.

8.1.3 *Repairs and maintenance cost of Jobs done in-house and outsourced separately.*

Details of Repairs and maintenance jobs executed in-house and outsourced shall be reflected separately by class of asset in the cost records.

8.1.4 *Cost of major overhauls, asset category wise and the basis of amortisation.*

Paragraph 5.9 of the standard provides for amortization of major overhaul cost on rational basis. Cost records shall reflect the basis adopted for amortization, amount amortized during the year and balance to be amortized over its useful life by class of asset.

8.1.5 *Repairs and maintenance cost paid/ payable to related parties⁷.*

The related parties have been defined under the Companies (Accounting Standards) Rules, 2006. Amount paid/payable to related parties for repairs and maintenance cost shall be reflected in the cost records.

8.1.6 *Repairs and maintenance cost incurred in foreign exchange.*

Details of repairs and maintenance cost incurred in foreign exchange for spare parts or hiring of technician etc shall be reflected in the cost records

8.1.7 *Any Subsidy / Grant / Incentive or any amount of similar nature received / receivable reduced from repairs and maintenance cost.*

⁷ Related party as per the applicable legal requirements relating to the cost statement as on the date of the statement



Any amount of subsidy/grant/incentive or any similar nature received shall be deducted from the repairs and maintenance cost and reflected in the cost records

8.1.8 Any credits / recoveries relating to the repairs and maintenance cost.

If any repairs and maintenance cost is carried out for any other unit of the entity, credits/amount recovered shall be adjusted against the repair and maintenance cost and reflected in the cost records.

8.1.9. Any abnormal portion of the repairs and maintenance cost.

Abnormal portion of repair and maintenance cost is to be excluded and shall be indicated separately.

8.1.10 Penalties and damages excluded from the repairs and maintenance cost.

As detailed under paragraph 5.15, penalties and damages do not form part of the Repairs and maintenance cost and shall be excluded and the same shall be reflected separately in the cost records.

8.2 Disclosures shall be made only where material, significant and quantifiable.

Disclosures of Repairs and maintenance cost to be made where material, significant and quantifiable. Materiality and significance has not been defined and will differ with a situation to situation.

8.3 Disclosures shall be made in the body of the Cost Statement or as a foot note or as a separate schedule.

Disclosure shall be made in the body of the cost statement. Depending upon the disclosure it can be indicated either as foot note or reflected in a separate schedule.

8.4 Any change in the cost accounting principles and methods applied for the measurement and assignment of the repairs and maintenance cost during the period covered by the cost statement which has a material effect on the repairs and maintenance cost shall be disclosed. Where the effect of such change is not ascertainable wholly or partly the fact shall be indicated.

Cost Accounting principles, and methods applied for the measurement and assignment of repairs and maintenance cost are to be applied between one period and other uniformly .If any change is made in these principles and methods which results in material effect on



the cost of product, the same shall be disclosed in the cost statement or by a foot note. In case the impact of change in principles and methods of cost accounting is not ascertainable, the fact is to be disclosed by a note to the cost statements.



(CAS – 12)

COST ACCOUNTING STANDARD ON REPAIRS AND MAINTENANCE COST

The following is the COST ACCOUNTING STANDARD – 12 (CAS - 12) issued by the Council of The Institute of Cost and Works Accountants of India on “REPAIRS AND MAINTENANCE COST”. In this Standard, the standard portions have been set in ***bold italic*** type. This standard should be read in the context of the background material which has been set in normal type.

1. Introduction

1.1 This standard deals with the principles and methods of determining the repairs and maintenance cost.

1.2 This standard deals with the principles and methods of classification, measurement and assignment of repairs and maintenance cost, for determination of the Cost of product or service, and the presentation and disclosure in cost statements.

2. Objective

The objective of this standard is to bring uniformity and consistency in the principles and methods of determining the repairs and maintenance cost with reasonable accuracy.

3. Scope

This standard should be applied to cost statements which require classification, measurement, assignment, presentation and disclosure of repairs and maintenance cost including those requiring attestation.

4. Definitions

The following terms are being used in this standard with the meaning specified.

4.1 Cost Object: *This includes a product, service, cost centre, activity, sub-activity, project, contract, customer or distribution channel or any other unit in relation to which costs are ascertained.*⁸



4.2 Direct Expenses: Expenses relating to manufacture of a product or rendering a service, which can be identified or linked with the cost object other than direct material cost and direct employee cost.

Examples of Direct Expenses are royalties charged on production, job charges, hire charges for use of specific equipment for a specific job, cost of special designs or drawings for a job, software services specifically required for a job, travelling Expenses for a specific job.

4.3 Finance Costs: Costs incurred by an enterprise in connection with the borrowing of funds. This will include interest and commitment charges on bank borrowings, other short term and long term borrowings, amortisation of discounts or premium related to borrowings, amortisation of ancillary cost incurred in connection with the arrangements of borrowings, finance charges in respect of finance leases, other similar arrangements and exchange differences arising from foreign currency borrowings to the extent they are regarded as an adjustment to the interest costs⁹. The terms Finance costs and Borrowing costs are used interchangeably.

4.4 Imputed Costs: Hypothetical or notional costs, not involving cash outlay, computed for any purpose.¹⁰

4.5 Normal capacity: Normal Capacity is the production achieved or achievable on an average over a number of periods or seasons under normal circumstances taking into account the loss of capacity resulting from planned maintenance.¹¹

4.6 Production overheads: Indirect costs involved in the production process or in rendering service¹².

The terms Production Overheads, Factory Overheads, Works Overheads and Manufacturing Overheads denote the same meaning and are used interchangeably. Production overheads shall include administration cost relating to production, factory, works or manufacturing.

⁹ Adapted from CIMA Terminology

¹⁰ Adapted from CAS 1 Para 6.5.13

¹¹ Adapted from CAS 2 paragraph 4.4

¹² Adapted from CAS-1 Para 6.3.3 and 6.3.4



4.7 Repairs and maintenance cost: *Cost of all activities which have the objective of maintaining or restoring an asset in or to a state in which it can perform its required function at intended capacity and efficiency.*

Repairs and Maintenance activities for the purpose of this standard include routine or preventive maintenance, planned (predictive or corrective) maintenance and breakdown maintenance.

The repair or overhaul of an asset which results in restoration of the asset to intended condition would also be a part of Repairs and Maintenance activity.

Major overhaul is a periodic (generally more than one year) repair work carried out to substantially restore the asset to intended working condition.

4.8 Standard Cost: *A predetermined cost of resource inputs for the cost object computed with reference to set of technical specifications and efficient operating conditions.*

Standard costs are used as scale of reference to compare the actual costs with the standard cost with a view to determine the variances, if any, and analyse the causes of variances and take proper measure to control them. Standard costs are also used for estimation.

5. Principles of Measurement:

5.1 *Repairs and maintenance cost shall be the aggregate of direct and indirect cost relating to repairs and maintenance activity.*

Direct cost includes the cost of materials, consumable stores, spares, manpower, equipment usage, utilities and other identifiable resources consumed in such activity. Indirect cost includes the cost of resources common to various repairs and maintenance activities such as manpower, equipment usage and other costs allocable to such activities.

5.2 *Cost of in-house repairs and maintenance activity shall include cost of materials, consumable stores, spares, manpower, equipment usage, utilities, and other resources used in such activity.*



5.3 Cost of repairs and maintenance activity carried out by outside contractors inside the entity shall include charges payable to the contractor and cost of materials, consumable stores, spares, manpower, equipment usage, utilities, and other costs incurred by the entity for such jobs.

5.4 Cost of repairs and maintenance jobs carried out by contractor at its premises shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of discounts (other than cash discount), taxes and duties refundable or to be credited. This cost shall also include the cost of other resources provided to the contractors.

5.5 Cost of repairs and maintenance jobs carried out by outside contractors shall include charges made by the contractor and cost of own materials, consumable stores, spares, manpower, equipment usage, utilities and other costs used in such jobs.

5.6.1 Each type of repairs and maintenance shall be treated as a distinct activity, if material and identifiable.

For example, routine or preventive maintenance, planned (predictive or corrective) maintenance and breakdown maintenance should be identified separately.

5.6.2 Cost of repairs and maintenance activity shall be measured for each major asset category separately.

5.7 Cost of spares replaced which do not enhance the future economic benefits from the existing asset beyond its previously assessed standard of performance shall be included under repairs and maintenance cost.

5.8 High value spare, when replaced by a new spare and is reconditioned, which is expected to result in future economic benefits, the same shall be taken into stock. Such a spare shall be valued at an amount that measures its service potential in relation to a new spare which amount shall not exceed the cost of reconditioning the spare. The difference between the total of the cost of the new spare and the reconditioning cost and the value of the reconditioned spare should be treated as repairs and maintenance cost.



Example: The cost of new spare is Rs. 1 crore and the value of the existing spare after reconditioning is estimated at Rs. 20 lacs, the difference of Rs. 80 lacs should be treated as repairs and maintenance cost.

5.9 The cost of major overhaul shall be amortized on a rational basis.

5.10 Finance costs incurred in connection with the repairs and maintenance activities shall not form part of Repairs and maintenance costs.

5.11 Repairs and maintenance costs shall not include imputed costs.

5.12 Price variances related to repairs and maintenance, where standard costs are in use, shall be treated as part of repairs and maintenance cost. The portion of usage variances attributable to normal reasons shall be treated as part of repairs and maintenance cost. Usage variances attributable to abnormal reasons shall be excluded from repairs and maintenance cost.

5.13 Subsidy / Grant / Incentive or amount of similar nature received / receivable with respect to repairs and maintenance activity, if any, shall be reduced for ascertainment of the cost of the cost object to which such amounts are related.

5.14 Any repairs and maintenance cost resulting from some abnormal circumstances, if material and quantifiable, shall not form part of the repairs and maintenance cost.

Example: Major fire, explosions, flood and similar events are abnormal circumstances referred above.

5.15 Fines, penalties, damages and similar levies paid to statutory authorities or other third parties shall not form part of the repairs and maintenance cost.

Example: A penalty imposed by a regulatory authority for wrongful construction or damages paid to third party for the loss caused due to improper working of property, plant & equipment, should not be included in repairs and maintenance cost.

5.16 Credits/ recoveries relating to the repairs and maintenance activity, material and quantifiable, shall be deducted to arrive at the net repairs and maintenance cost.



5.17 Any change in the cost accounting principles applied for the measurement of the repairs and maintenance cost should be made only if, it is required by law or for compliance with the requirements of a cost accounting standard, or a change would result in a more appropriate preparation or presentation of cost statements of an organisation.

6. Assignment of costs

6.1 Repairs and maintenance costs shall be traced to a cost object to the extent economically feasible.

6.2 Where the repairs and maintenance cost is not directly traceable to cost object, it shall be assigned based on either of the following two principles;

i) Cause and Effect - Cause is the process or operation or activity and effect is the incurrence of cost.

ii) Benefits received – overheads are to be apportioned to the various cost objects in proportion to the benefits received by them.

6.3 If the repairs and maintenance cost (including the share of the cost of reciprocal exchange of services) is shared by several cost objects, the related cost shall be measured as an aggregate and distributed among the cost objects as per principles laid down in Cost Accounting Standard – 3.

7. Presentation

7.1 Repairs and maintenance cost, if material, shall be presented in the cost statement as a separate item of cost.

7.2 Asset category wise details of repairs and maintenance cost, if material, shall be presented separately.

7.3 Activity wise details of repairs and maintenance cost, if material, shall be presented separately.

8. Disclosures

8.1 The cost statements shall disclose the following:

1. The basis of distribution of repairs and maintenance cost to the cost objects/ cost units.



- 2. Where standard cost is applied in repairs and maintenance cost, the price and usage variances.**
- 3. Repairs and maintenance cost of Jobs done in-house and outsourced separately.**
- 4. Cost of major overhauls, asset category wise and the basis of amortisation.**
- 5. Repairs and maintenance cost paid/ payable to related parties¹³.**
- 6. Repairs and maintenance cost incurred in foreign exchange.**
- 7. Any Subsidy / Grant / Incentive or any amount of similar nature received / receivable reduced from repairs and maintenance cost.**
- 8. Any credits / recoveries relating to the repairs and maintenance cost.**
- 9. Any abnormal portion of the repairs and maintenance cost.**
- 10. Penalties and damages excluded from the repairs and maintenance cost.**

8.2 Disclosures shall be made only where material, significant and quantifiable.

8.3 Disclosures shall be made in the body of the Cost Statement or as a foot note or as a separate schedule.

8.4 Any change in the cost accounting principles and methods applied for the measurement and assignment of the repairs and maintenance cost during the period covered by the cost statement which has a material effect on the repairs and maintenance cost shall be disclosed. Where the effect of such change is not ascertainable wholly or partly the fact shall be indicated.

¹³

Related party as per the applicable legal requirements relating to the cost statement as on the date of the statement