



The Institute of Cost Accountants of India **Cost Accounting Standards Board**

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Capacity Utilization, Production & Operation Over Heads & Manpower



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Flow of the Presentation

- CAS 2 – Cost Accounting Standard on Capacity Determination
- CAS 3 – Cost Accounting Standard on Production & Operation Overheads
- CAS 7 – Cost Accounting Standard on Employee Cost
- CAS 2, CAS 3 & CAS 7 : ERP Environment (Spl. focus on SAP)

CAS 2

Cost Accounting Standard on Capacity Determination



CAS 2 – Capacity Determination

Definitions

- **Actual capacity utilization:** Actual capacity utilization is the volume of production achieved or service provided in a specified period, expressed as a percentage of installed capacity.
- **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.



CAS 2 – Capacity Determination

Determination of Capacity

Installed capacity :

Installed capacity is usually determined based on:

- i) Technical specifications of facility.
- ii) Technical evaluation.
- iii) Capacities of individual or interrelated production or operation Centres.
- iv) Operational constraints or capacity of critical machines or equipment.
- v) Number of shifts or machine hours or man hours.

CAS 2 – Capacity Determination

Determination of Capacity

Normal Capacity :

Normal capacity is determined after suitable adjustments to the Installed Capacity.

The adjustments may be of the following nature:

- i) Time lost due to scheduled preventive or planned maintenance
- ii) Number of shifts or machine hours or man hours
- iii) Holidays, normal shut down days, normal idle time
- iv) Normal time lost in batch change over

CAS 2 – Capacity Determination

Important Points

- **The Normal Capacity is critical concepts as it affects the absorption of the overheads.**
- **In specific industries the Capacity determination is unique –**
 - **Example – Sugar Industry, Power Industry, Mining**
- **As a good practice a comparative study of the Normal Capacity for multiple periods needs to be carried out. This will give you better insight into the change in the operational level of the company.**



CAS 2 – Capacity Determination

Important Points

- **Factors like No. of Shifts, Planned Shutdown Days, etc. should be given due care when calculating Capacity Utilization.**
- **The Number of Shifts data needs to be cross verified with –**
 - **Manpower Deployed in various shifts**
 - **Output in various shifts**
- **Manpower Deployment Vs. Machines ratio is also a critical factor to be analysed.**

CAS 2 – Capacity Determination

Capacity Utilization at Unit / Department / Machine Level

- **The Disclosure in the Cost Audit Report is for the Company as a whole and that too at CTA Level.**
- **To get the Correct Costing it is necessary to analyze capacity utilization at Micro Level**
- **The Capacity Utilization at Machine / Department / Unit level needs to be considered for calculating Cost of Production of the Item**

CAS 2 – Capacity Determination

Production of Intermediaries

- **The Production of Intermediaries play an important role on the calculation of Capacity Utilization.**
- **It is important to check the quantum of the Intermediaries i.e. WIP or SFG in stock to understand its impact on the Capacity Utilization.**

CAS 2 – Capacity Determination

Equivalent Units

- **Concept of Equivalent Units is one of the most importance concepts and has wide practical application.**

Examples –

- **Cable Industry : Core of the Cable is critical factor. The standard UOM is Length, say KM. The critical factor is Number of Cores. Thus a 4 Core Cable, 8 Core Cable or 16 Core Cable needs to be converted to equivalence units**
- **Engine : No. of Cylinders in the Engine can be a critical factor. The standard UOM is say Nos. The critical factor is Number of Cylinders. Thus a 1 Cylinder Engine & a 8 Cylinder Engine needs to be converted to equivalence units**

CAS 2 – Capacity Determination

Equivalent Units

- **The conversion factor is not necessarily proportionate. Technical specifications and parameters need to be identified to determine equivalence.**
- **Machine Hour / Man Hour data can be one of the commonly used equivalence factors.**

CAS 2 – Capacity Determination

Subcontracting Operations & their impact on Capacity

- **Impact on determination of Installed Capacity**
- **Difference in case of organization Providing Subcontracting Services or Availing Subcontracting Services**
- **Cost Benefit Analysis of Subcontracting Vs Building or using In-house Capacity.**
 - **Price**
 - **Technical Capability**
 - **Quality**
 - **Recovery of Fixed Cost**
 - **Strategic Partnership**
 - **Alternate Source of Supply**

CAS 2 – Capacity Determination

Other Points

- **Definition of Capacity : Throughput or Total Production. This is a more micro level issue, but it is very critical.**
- **Bottleneck Operation determines capacity. Methods to remove this bottleneck.**
- **Technical information pertaining to Routing is most closely associated with Capacity Determination.**
- **Involvement of all the Line Departments in collection of Data – Production, Maintenance, Production Engineering, HR**

CAS 3

Cost Accounting Standard on Production & Operation Overheads



CAS 3 – Production & Operation Overheads

Definitions

- **Production or Operation Overheads:** Indirect costs involved in the production of a product or in providing service.

The terms Production Overheads, Operation Overheads, Factory Overheads, Works Overheads and Manufacturing Overheads denote the same meaning and are used interchangeably.

Production or Operation Overheads include administration cost relating to production, factory, works or manufacturing and providing of services.

- **Administrative Overheads:** Cost of all activities relating to general management and administration of an entity.

Administrative overheads shall exclude production overheads, marketing overheads and finance cost. Production overheads includes administration cost relating to production, factory, works or manufacturing.

CAS 3 – Production & Operation Overheads

Principle of Measurement

- **Production or Operation Overheads representing procurement of resources shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of discounts (other than cash discounts), taxes and duties refundable or to be credited.**
- **Production or Operation Overheads other than those referred above shall be determined on the basis of cost incurred in connection therewith.**

In case of machinery spare fabricated internally or a repair job carried out internally, it will include cost incurred on material, employees and expenses.

CAS 3 – Production & Operation Overheads

Principle of Measurement

- **Any abnormal cost where it is material and quantifiable shall not form part of the Production or Operation Overheads.**
- **Production or Operation Overheads shall not include imputed cost.**
- **Credits or recoveries relating to the Production or Operation Overheads, material and quantifiable, shall be deducted from the total Production or Operation overheads to arrive at the net Production or Operation Overheads. Where the recovery exceeds the total Production or Operation Overheads, the balance recovery shall be treated as other income.**

CAS 3 – Production & Operation Overheads

Assignment

- **The variable Production or Operation Overheads shall be absorbed to products or services based on actual production.**
- **The fixed Production or Operation Overheads shall be absorbed based on the normal capacity.**

CAS 3 – Production & Operation Overheads

Important Points

- **Classification of Over Heads into Administration Over Heads Related to Production & Presentation of the same in the Cost Statements workings**
 - **Examples – Salary of Indirect Line Employees, Salary of Plant Head, Depreciation on Furniture & Fixture in Plant, etc.**
- **Classification of Over Heads into Fixed & Variable is very critical. The Absorption of the same into Product depends on this classification & Capacity Utilization.**
- **Whether to go for Full Absorption for a Profit Making Company with Low Capacity Utilization ?**

CAS 7

Cost Accounting Standard on Employee Cost



CAS 7 – Employee Cost

Definitions

- **Employee Cost:** Employee Benefits paid or payable in all forms of consideration given for the service rendered by employees (including temporary, part time and contract employees) of an entity.

Explanation:

1. Contract employees include employees directly engaged by the employer on contract basis but does not include employees of any contractor engaged in the organisation.
2. Compensation paid to employees for the past period on account of any dispute / court orders shall not form part of Employee Cost.
3. Short provisions of prior period made up in current period shall not form part of the employee cost in the current period.

CAS 7 – Employee Cost

Definitions

- **Direct Employee Cost:** Employee cost, which can be attributed to a Cost object in an economically feasible way.
- **Indirect Employee Cost:** Employee cost, which can not be directly attributed to a particular cost object.

CAS 7 – Employee Cost

Principle of Measurement

- **Employee Cost shall be ascertained taking into account the gross pay including all allowances payable along with the cost to the employer of all the benefits.**
- **Employee cost shall not include imputed costs.**
- **The cost of free housing, free conveyance and any other similar benefits provided to an employee shall be determined at the total cost of all resources consumed in providing such benefits.**
- **Any recovery from the employee towards any benefit provided e.g. housing shall be reduced from the employee cost.**

CAS 7 – Employee Cost

Important Points

- **Functional Classification of Employee Cost is very important.**
- **Defining Correct Cost Objects for Cost Collection.**
- **Posting of Employee Cost to the Appropriate Cost Objects in the first instance is very important.**
- **The Manpower Cost has to be considered in total. Manpower Cost Sheet may have to be prepared to capture the total cost.**
 - **Example – CTC, Cost of Free Services Provided, Recovery from the Employees, etc.**

CAS 7 – Employee Cost

Important Points

- **Impact of various Provision on the Employee Costs. Identifying the impact not pertaining to the Current Period.**
 - **Example – Gratuity Provision, Retirement Benefits, Provident Fund Provision, etc.**
- **Report of Actuarial Valuation may be a good tool to get this information.**
- **Impact of Ind AS Adjustments**

CAS 7 – Employee Cost

Important Points

- **Direct Labour Cost – Fixed or Variable - Different Concepts in Cost Accounting & Management Accounting**
- **Contract Labour & its Deployment. Generating Record at Source.**
- **Own Employees deployed for Asset Creation.**

CAS 7 – Employee Cost

Important Points – Qty Information

- **Total Number of Employees , bifurcated into categories**
- **Record of Employee Attendance**
- **Record of Contract Labour Deployment – Numbers and Function**
- **Co-relating Employee Cost to the No. of Employees**
- **Turnover / Employee & Change YoY**
- **Production / Employee & YoY**
- **Using the No. of Employees Data to Cross Check the Capacity Information**
- **Routing is a Critical Record that is closely linked to the Employee**

CAS 2, CAS 3 & CAS 7

ERP Environment (special focus on SAP)

CAS 2, 3 & 7 – ERP Environment (spl. focus on SAP)

- **Important Quantity Records in the ERP System –**

Work Center	Capacity Utilization Labour
Routing	Capacity Utilization Labour
Activity Types	Labour
Cost Center	Manpower Over Heads
Primary Posting	Manpower Over Heads
Assessment / Distribution	Manpower Over Heads
Activity Rates	Manpower
Over Head Rates	Over Heads

CAS 2, 3 & 7 – ERP Environment (spl. focus on SAP)

Important Reports in SAP

- CR05 – Work Center List
- CR06 – Cost Center Assignment
- CA80 – Work Center – Where Used List
- CA03 – Display Routing
- CA23 – Display Rate Routing
- KS13 – Cost Center : Master Data Report
- KSH3 – Display Cost Center Groups
- KOK5 – Internal Order : Master Data Report

CAS 2, 3 & 7 – ERP Environment (spl. focus on SAP)

Important Reports in SAP

- **S_ALR_87013613** – GL – Cost Center wise Report
- **S_ALR_87013611** – Hierarchical Overview of Cost Centers & Over Under Absorption at Cost Center
- **S_ALR_87013617** – Cost Center wise Activity Type Quantities
- **S_ALR_87013618** – Cost Center wise SKF

CAS 2, 3 & 7 – ERP Environment (spl. focus on SAP)

Important Reports in SAP

- **KSB1** – Cost Center Line Items, Analysis of Assessment
- **KOB1** – Internal Order Line Items
- **KSBT** – Cost Center Activity Prices
- **KKBC_PKO** – Product Cost Collector Detailed Report
- **KKBC_ORD** – Production Order Detailed Report

Thank You.



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