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ACCOUNTING STANDARD – 7 CONSTRUCTION CONTRACTS

Quote:

“Limitations live only in our Minds, But if we use our imaginations,
Our Possibilities become Limitless”

1. INTRODUCTION

AS 7 defines Construction Contract as a contract specifically negotiated for the construction of:

- an Asset; or
- a combination of assets that are closely interrelated or interdependent in terms of their design, technology, function, ultimate purpose or use.

The construction contracts in AS 7 include contracts for:

(a) The rendering of services which are directly related to the construction of the asset; &

Example: Contract for the services of project managers, architects & Labour.

(b) The destruction or restoration of assets, and the restoration of the environment following the demolition of assets.

Example: Contract for Demolition of Factory Building to save Environment.

2. TYPES OF CONSTRUCTION CONTRACT

Construction Contracts are of two types:

- a. **Fixed price contracts** - In this case of contract, contractor agrees for **fixed price** of the contract or fixed rate/unit. However, in some cases the contract price is subject to escalation.
- b. **Cost-plus contract** - In these contracts, contractor is reimbursed the **Cost plus fixed percentage of profit**.
- c. **Hybrid** - Mixed of above two.

EXAMPLE 1 (Cost Plus Contract):

ABC Constructions has a contract to build an office building. The terms and conditions are as under:

1. ABC's profit is agreed at:

- 25% on expected contract's cost; For this purpose, the expected cost cannot exceed ₹ 22 crores.

2. The agreed price will be revised depending upon the actual cost incurred.

- The cost for fixation will be taken actual cost or ₹ 22 crores whichever is less.

Price fixation based on expected cost:

Assume that the costs expected to be incurred by ABC are ₹ 16 crore. Thus, ABC can charge a profit of ₹ 4 crores (25% on actual cost).

The contract price will be ₹ 20 crores. (₹ 16 crores plus ₹ 4 crores)

Price fixation based on actual cost incurred - Scenario 1:

However, if cost incurred by ABC is ₹ 15 crore, in that case, it would be able to charge a profit of:

= 25% on ₹ 15 crore = $15 \times 25\% = ₹ 3.75$ crore

Thus, Total Value of the contract will stand revised as follows:

= Actual Costs + Profit (25% of costs) = ₹ 15 crore + ₹ 3.75 crore = ₹ 18.75 crores.

Price fixation based on actual cost incurred - Scenario 2:

For any unavoidable reasons, if total cost incurred by ABC is ₹ 25 crore, it can only charge a profit on the expected costs of ₹ 22 crore as under:

Thus, Total Value of the contract will stand revised as follows:

= Expected Costs + Profit (25% of costs) = ₹ 22 crore + ₹ 5.50 crore = ₹ 27.50 crores.

Analysis of the above scenario:

Cost actually incurred by ABC = ₹ 25 crores.

Actual profit earned by ABC = Total Value of the contract - Actual costs incurred

= ₹ 27.50 Crores - ₹ 25 Crores = ₹ 2.50 Crores.

3. CALCULATING THE PROFIT OR LOSS OF A CONSTRUCTION CONTRACT

Profit or Loss on Construction contract is = Contract Revenue - Contract Cost

A. CONTRACT REVENUE:

Contract revenue can be recognised when there is **no significant uncertainty** exists regarding the **amount of collection**. It is calculated as below:

Price Agreed as per contract (Fixed Price)	XXX
(+) Revenue arising due to escalation clause	XXX
(+/-) Variations due to change in scope of Work (Modification)	XXX
(+) Claims recoverable from customers in the form of reimbursements	XXX
(+) Incentives recoverable from customers on achieving the Targets	XXX
(-) Penalties Payable to customers for any delay	XXX
Total Contract Revenue	XXXX

Note:

Variations, Claims, Incentives and Penalties are considered only when:

- (i) When there is certainty of collection/payment; and
- (ii) they can be measured reliably

B. CONTRACT COSTS

Contract costs consist of the following:

<u>Specific Costs of Completing the Contract:</u>	
Material Cost (Opening + Purchase - Closing)	XXX
Labour Cost	XXX
Depreciation of PPE used in Contract	XXX
Cost of Hiring the PPE	XXX
Cost of design & technical assistance	XXX
(-) Incidental income (sale of scrap material)	XXX
<u>Cost Attributable to Contract:</u>	
Insurance Exp	XXX
Overhead cost allocated to the Contract	XXX
Pre contract cost (cost incurred to secure the contract)	XXX
Total Contract Cost	XXXX
Contract Cost incurred during the year Also means = Work Certified + Work Uncertified	

These expenses are not a part of Contract Cost: General administration cost, Selling cost, Research and development & Abnormal Loss.

4. PERCENTAGE OF COMPLETION METHOD (PCM)

As per AS 7, the contract revenue will be recognised with reference to the Percentage of Completion (PCM) at the reporting date.

Determination of Percentage of Completion:

Cost Approach	Technical Survey Approach
% of Completion = $\frac{\text{Cost Incurred Till date}}{\text{Total Est. Cost of Project}} \times 100$	% of Completion is calculated in reference to the survey conducted by Certified Engineer for each and every part of the project.
Cost Incurred Till date also means = Work Certified + Work Uncertified	Refer Example below

Example 2: A construction contract of a two floor building for Rs. 15 lakhs (with a 50% margin)

Divisions of contract	Technical Completion	Cost to complete
Foundation	35%	5
1 st Floor	10%	1
2 nd Floor	15%	1
Tiling, painting, fitting etc.,	40%	3
	100%	10

Foundation work was completed.

Conclusion:

- a) Under the cost to cost method, revenue of Rs.7.5 lakhs (15 Lakhs X 5/10 Lakhs) would be recognised & cost of Rs.5 lakhs would be recognised and profit of Rs. 2.5 lakhs would be recognised.
- b) Under the Technical survey method, revenue of Rs. 5.25 lakhs (35% of Rs. 15 lakhs) would be recognised, cost of Rs.3.5 lakhs (35% of Rs. 10 lacs) would be recognised and a profit of Rs. 1.75 lacs would be recognised.

5. IMPORTANT PROVISIONS FOR REVENUE RECOGNITION

Outcome of Contract	Revenue Recognition is based on Outcome of Contract as under: When the outcome of the contract is estimated reliably, Revenue should be recognised as per % of Completion Method When the outcome of the contract cannot be estimated reliably, Revenue should be recognised only to the extent of contract costs incurred of which recovery is probable. (i.e. Revenue = Cost incurred i.e. No Profit/Loss)
Total Contract Cost will exceed Total Contract Revenue	When it is probable that total contract cost may exceed total contract revenue, then Expected loss should be immediately provided for. (Refer Example 6 & 8)
Subsequent uncertainty in collection	Once revenue is recognised and then uncertainty of collection arise, in such case it is better to make provision for doubtful debts instead of reversing the revenue.

Example 3:

X Ltd. commenced a construction contract on 01/04/X1. The contract price agreed was reimbursable cost plus 10%. The company incurred Rs.1,00,000 in 20X1-X2, of which cost of Rs.90,000 is reimbursable. The further non-reimbursable costs to be incurred to complete the contract are estimated at Rs.5,000. The other costs to complete the contract cannot xbe estimated reliably.

SOLUTION:**Profit & Loss Account**

	Rs.000		Rs.000
To Construction Costs	100	By Contract Price (90+9)	99
To Provision for loss	5	By Net loss	6
	105		105

6. PRESENTATION IN FINANCIAL STATEMENTS

An enterprise should present:

- (i) the Gross Amount due from customers for contract work as an asset; and
- (ii) the Gross Amount due to customers for contract work as a liability.

Particulars	Amount
Cost Incurred (Work Certified + Uncertified)	
(+) Profits Recognised till date	
(-) Losses Recognised till date (Recoveries Not Possible)	
(-) Progress Billings	
Total Amount	XXX
If Amt. is positive then Due from Customer	
If Amt. is Negative then Due to Customer	

Note:

PROGRESS BILLING MEANS = PAYMENT RECEIVED + RETENTION

7. SUMMARY of ABOVE

Based on above Discussion we can summarize following Key Points-

1. **Contract Revenue** shall be recognized **based on PCM** until and unless the outcome of contract cannot be estimated probably.
2. If Outcome cannot be estimated probably **then do not apply PCM**, Revenue shall be recognize only **to the extent of Actual Cost Incurred till date** of which recovery is Probable.
3. **Contract Cost** shall be recognized based on Actual Cost incurred during the Period. PCM shall not be applied on Contract Cost.

EXAMPLE 4:

Contractual Term = 3 Years

Year	1	2	3
Contract Cost incurred during the year	7,20,000	11,70,000	15,60,000
Further Estimated cost to be incurred	25,00,000	14,00,000	-

Calculate % of Completion for Every Year.

SOLUTION

$$1^{\text{st}} \text{ Year} = 7,20,000 / (7,20,000 + 25,00,000) \times 100 = 22.36\%$$

$$2^{\text{nd}} \text{ Year} = 18,90,000 / (18,90,000 + 14,00,000) \times 100 = 57.45\%$$

$$3^{\text{rd}} \text{ Year} = 100\%$$

EXAMPLE 5:

	(₹ IN Cr.)		
	1	2	3
Cost incurred till date	1,500	3,750	6,200
Further estimated cost to be incurred	4,500	2,400	0

Total fixed price agreed with customer = 8,000

SOLUTION

	1	2	3	
% of completion	25%	61%	100%	
Cumulative Revenue	2,000	4,880	8,000	
Current Year Revenue	2,000	2,880	3,120	
Current Year Cost	1,500	2,250	2,450	
Profit	500	630	670	1,800

% = Cost incurred till date/Total Estimated Cost

EXAMPLE 6: (Provision for Expected Loss)

Contractual Term = 3 Years

Contract Revenue = 3000 Cr.

	1	2	3
Contract Cost incurred till date	800	1900	3200
Further Estimated cost to be incurred	1750	1300	-

Calculate Contract Profit/Loss every year.

SOLUTION:

	1	2	3
	$800/2,550 \times 100 = 31.37\%$	$1,900/2,550 \times 100 = 59.38\%$	100%
Cumulative Revenue	941	1,781	3,000
Current Year Revenue	941	840	1,219
Current Year Cost	800	1,100	1,219**
Current Year Profit/Loss	141	(260)	0
Loss till date Recognised	-	260-141 = 119	
Loss to be Recognised	-	200-119 = 81*	

* As per AS 7 (Contract Cost) when total Construction Cost is expected to be in excess of Contract Revenue then Loss should be provided for immediately.

**Cost to be recognised = 3,200 - 1,900	1,300
(-) Loss already Recognised	(81)
Cost to be Recognised	1,219

EXAMPLE 7:

Consider the following % of Completion in a 3 Years Construction Project:

Year 1 - 25%

Year 2 - 61%

Year 3 - 100%

Total agreed price of contract = 2,50,00,000

Year	1	2	3
Addition / deduction in Price	(4,50,000)	7,00,000	20,00,000
	penalty	Escalation clause	Modification (Additional Assets)

How much Revenue shall be recognised every year?

SOLUTION:

Year 1

Agreed Price	2,50,00,000
(-) Penalty	4,50,000
Revised Price	2,45,50,000
% of Completion	25%
Revenue	61,37,500/-

Year 2

Earlier Agreed Price	2,45,50,000
(+) Escalation	7,00,000
Revised Price	2,52,50,000
% of Completion	61%
Cumulative Revenue till 2 nd Year	1,54,02,500
(-) Revenue Recognition in 1 st Year	(61,37,500)
Current Year Revenue	92,65,000

Year 3

Earlier Agreed Price	2,52,50,000
(+) Modification	20,00,000
Cumulative Final Price	2,72,50,000
(-) Revenue already Recognised till date	1,54,02,500
Current Year Revenue	1,18,47,500

EXAMPLE 8:

Agreed Price = 5,000 lakhs

Term = 3 Years

Year	1	2	3
Contract Cost incurred till date	1,750	4,500	5,200
Estimated Total Cost	4,650	5,200	5,200
PCM (%)	37.63%	86.54%	100%

SOLUTION:

Year 1

Revenue	1,881.50
(-) Cost	1,750
Profit	131.50

Year 2

Cumulative Revenue	4,327
(-) Last Year Revenue	1,881.50
Current Year Revenue	2,445.50
(-) Cost of Current Year	2,750
Current Year Loss	304.50

Position of Profit/Loss till 2nd Year = 131.5 - 304.5 = 173

Loss Already Recognised till Date = 173

*When entity estimates that overall contract Cost will exceed overall Contract Revenue, then Loss to the Contract will be Recognised Immediately.

Therefore,

Revenue	5,000
Estimated Cost	(5,200)
Estimated loss of entire Contract	200
Loss already Recognised	(173)
Extra Loss to be recognised immediately	27

How to Measure Revenue when there is Incentive but such incentives are Variable?

Example 9:

Agreed Price = 50 lakhs

Total Term = 3 Years

Incentive is: -

(a) Either 5%, if work completed within 3 Years

(or)

(b) 10%, if work completed within 30 months

There is a 80% Probability that work will be Completed within 30 months & 20% Probability of beyond 30 months.

Calculate total revenue expected from contract.

SOLUTION: -

Total Revenue = Agreed Revenue + Incentives (Estimated)

Estimated Incentive: -

10% × 80% = 8%

5% × 20% = 1%

Weighted Average Incentive = 9%

Total Revenue = 50,00,000 + 9% = 54,50,000

How to Solve the Full Question Covering Maximum adjustments of AS 7?

Step 1	<p><u>Calculate % of Completion of Contract (PCM):</u></p> $\frac{\text{Cost Incurred till date (work certified + work uncertified)}}{\text{Total Estimated Cost of Project}} \times 100$												
Step 2	<p><u>Recognise Contract Revenue & Cost and Calculate Contract Profit/loss:</u></p> <p>Contract Revenue = Total Price x PCM (%) = XXX (less) Revenue Recognised till last year</p> <p>Contract Cost = Work Certified + Uncertified = XXX</p> <p>Contract Revenue (-) Contract Cost = Contract Profit/loss</p>												
Step 3	<p><u>Recognise Provision of Foreseeable Loss:</u> (if total contract cost is expected to exceed contract revenue)</p> <table border="0" style="width: 100%;"> <tr> <td>Total Contract Revenue</td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>(-) Total Contract Cost of Project</td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>Total Loss in a Contract</td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>(-) Loss already recognised</td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>(+) Profit already recognised</td> <td style="text-align: right;">XXX</td> </tr> <tr> <td>Provision for Foreseeable Loss</td> <td style="text-align: right;">XXX</td> </tr> </table>	Total Contract Revenue	XXX	(-) Total Contract Cost of Project	XXX	Total Loss in a Contract	XXX	(-) Loss already recognised	XXX	(+) Profit already recognised	XXX	Provision for Foreseeable Loss	XXX
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8. IDENTIFYING CONSTRUCTION CONTRACT

Single Contract of Multiple Assets	<p>Treat Separate Contract for each Asset if all these conditions are satisfied:</p> <ul style="list-style-type: none"> a) Separate proposals are submitted for each asset; b) Each asset is subject to separate negotiation i.e. both contractor and customer have the ability to accept some part and reject some part of the contract; c) Cost and Revenue of Each Asset can be identified separately.
<p>Contract Combinations: Two or More contracts with Same party entered into or near the same time be considered a "Single Contract" if any one of these conditions are met.</p>	<p>Conditions:</p> <ul style="list-style-type: none"> a) The contracts are negotiated as a package. <li style="text-align: center;">OR b) All or major assets are contracted for a common objective. It means assets are dependent or inter-related with each other. <p>Here in this case, Single PCM shall be calculated for all the Assets Contract combined.</p>
Additions to the Contract	<p>When there is any addition to the existing contract then such additional assets are treated as separate contract if any one condition is satisfied:</p> <ul style="list-style-type: none"> a) The additional Asset is clearly distinct from the Existing Asset under the contract in respect of design, location, function or technology. (OR) b) The Price of additional asset is negotiated separately without considering the original contract (i.e. Contractor is Charging Standalone price for that Additional Asset)

Example 10:

B Limited has taken a construction contract from the authority to develop a township. The contract involves several other contracts such as residential complexes, roads, power stations, reservoirs and commercial complex. Separate tenders were floated and separate proposals have been submitted for the same. Negotiations have been separate. However, all the contracts have been awarded to B Limited. This will be a case of segmenting the contracts as there are separate proposals, separate negotiations, the award of one contract has no relationship with the other and costs and revenues of each contract are separately identifiable.

9. (MCQ's from ICAI Material)

The below information relates to Questions 1 - 3:

XY Ltd. agrees to construct a building on behalf of its client GH Ltd. on 1st April 20X1. The expected completion time is 3 years. XY Ltd. incurred a cost of ₹ 30 lakh up to 31st March 20X2. It is expected that additional costs of ₹ 90 lakh. Total contract value is ₹ 112 lakh. As at 31st March 20X2, XY Ltd. has billed GH Ltd. For ₹ 42 lakh as per the agreement. Assume that the work is completed to the extent of 75% by the end of Year 2.

1. Revenue to be recognized by XY Ltd. for the year ended 31st March 20X2 is
 - (a) ₹ 28 lakh
 - (b) ₹ 42 lakh
 - (c) ₹ 30 lakh
 - (d) ₹ 32 lakh

2. Total expense to be recognised in Year 1 is
 - (a) ₹ 30 lakh
 - (b) ₹ 120 lakh
 - (c) ₹ 38 lakh
 - (d) ₹ 36 lakh

3. Revenue to be recognised for year 2 is
 - (a) ₹ 84 lakh
 - (b) ₹ 42 lakh
 - (c) ₹ 56 lakh
 - (d) ₹ 28 lakh

Below information relates to Questions 4 - 6

M/s AV has presented the information for Contract No. XY123:

Total contract value	₹ 370 lakh
Certified work completed	₹ 320 lakh
Costs incurred to date	₹ 360 lakh
Progress Payments received	₹ 300 lakh
Expected future costs to be incurred	₹ 50 lakh

4. Revenue to be recognised by M/s AV is
 - (a) ₹ 320 lakh
 - (b) ₹ 370 lakh
 - (c) ₹ 360 lakh
 - (d) ₹ 400 lakh

5. Total expense to be recognised by M/s AV is
- ₹ 360 lakh
 - ₹ 400 lakh
 - ₹ 320 lakh
 - ₹ 360 lakh
6. LP Contractors undertakes a fixed price contract of ₹ 200 lakh. Transactions related to the contract include:
- Material purchased: ₹ 80 lakh
 Unused material: ₹ 30 lakh
 Labour charges: ₹ 60 lakh
 Machine used for 3 years for the contract. Original cost of the machine is ₹ 100 lakh. Expected useful life is 15 years.
 Estimated future costs to be incurred to complete the contract: ₹ 80 lakh. Loss on contract to be recognised is:
- ₹ 40 lakh
 - ₹ 10 lakh
 - ₹ 90 lakh
 - ₹ 50 lakh

ANSWERS	1	2	3	4	5	6
	a	d	c	a	d	b



Student Notes:-