

Managerial Accounting Group Project

ACCT 110- W01

BYP 1-2, 2-2, 3-2

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28/30

BYP1-2

A tornado has hit Wendall Company and all the records of the company are believed to have blown away. Fortunately Bill and Elizabeth employees of the company are able to find some papers from the wreckage. Their problem is that they need to find data in order to file an insurance claim and get money back for the damaged inventory that no longer exists since it got blown away by the tornado. With the information they found on the records that were salvaged along with work experience are able come up with the amount of inventory they had up to the date of the disaster. They are able to divide the Cost of Goods Manufactured Schedule into separate parts and equations. Then by plugging in the values they know they can be successful in filing an insurance claim. They are able to determine the ending raw materials inventory this way:

Ending Raw Materials Inventory

Beginning raw materials + Raw materials purchased

= Raw materials available for use

= \$19,000 + \$365,000 = \$384,000

Raw materials available for use – Ending raw materials inventory

= Direct materials used

\$384,000 – Ending raw materials inventory = \$350,000

Ending raw materials inventory = \$384,000 – \$350,000 = \$34,000

After finding the ending raw materials inventory they can use the data on the records along with Elizabeth's experience to determine the ending work in process inventory:

Ending Work in Process Inventory

Direct materials + Direct labor + Manufacturing overhead

= Total manufacturing costs

= \$350,000 + \$250,000 + (\$250,000 X 60%) = \$750,000

Beginning work in process inventory + Total manufacturing costs

= Total cost of work in process

= \$25,000 + \$750,000 = \$775,000

Cost of goods manufactured + Beginning finished goods inventory

= Cost of goods available for sale

Cost of goods manufactured + \$38,000 = \$770,000

Cost of goods manufactured = $\$770,000 - \$38,000 = \$732,000$

Total cost of work in process – Ending work in process inventory
= Cost of goods manufactured

$\$775,000 - \text{Ending work in process inventory} = \$732,000$

Ending work in process inventory = $\$775,000 - \$732,000 = \underline{\$43,000}$ ✓

Finally, after finding out the values for ending raw materials inventory, ending work in process inventory they need to find the cost of goods sold. To arrive at the amount of ending finished goods inventory, which is \$26,000:

Ending Finished Goods Inventory

Sales – Cost of goods sold = Gross profit

$\$1,240,000 - \text{Cost of goods sold} = \$1,240,000 \times 40\%$

Cost of goods sold = $\$1,240,000 - \$496,000 = \$744,000$

Cost of goods available for sale – Ending finished goods inventory
= Cost of goods sold

$\$770,000 - \text{Ending finished goods inventory} = \$744,000$

Ending finished goods inventory = $\$770,000 - \$744,000 = \underline{\$26,000}$ ✓

Finding out all these values will help Bill and Elizabeth file an insurance claim for the fashion outfits that got blown away. Since they were able to accurately determine these values there would be no problem in them getting money back from their insurance company assuming they are covered for this disaster. +10

BYP 2-2

Within the organization Khan Products Company, a company that uses a job order cost system; there is a special-order product known as TC-1 that, for months now, has been causing a problem between the sales department and production department. This particular item is a seasonal product that is usually manufactured in increments of 1000 units and sold at cost plus a markup of 40%. The big problem has to do with fluctuating unit production costs and sales. The sales department with Khan Products Company doesn't like the fact that unit production costs for

product TC-1 vary so much over different periods because it affects sales prices, which in turn causes customer complaints and orders losses. The production department however, believes that the only real solution to this problem is for the sales department to increase prices during slack periods because the reality is that each job order has to be fully costed on the basis of the costs incurred during the period in which the goods are produced.

When you look at the data below:

	Quarters			
Costs	1	2	3	4
Direct Materials	\$100,000	\$220,000	\$80,000	\$200,000
Direct Labor	60,000	132,000	48,000	120,000
Manufacturing Overhead	105,000	153,000	97,000	125,000
Total	\$265,000	\$505,000	\$225,000	\$445,000
Production in Batches/Increments	5	11	4	10
Unit Cost (per batch/increment)	\$53,000	\$45,909	\$56,250	\$44,500

You can see that the manufacturing cost element that is responsible for the fluctuating cost is *rather than applied* actually "manufacturing overhead". The reason this is true is *because the company use actual manufacturing* because product TC-1 is a seasonally *overhead cost* item. Since it is seasonal, manufacturing overhead costs increase when it is in season and decrease when it is not in season.

One solution to this problem that Khan Products Company may want to consider is to appoint manufacturing overhead costs to each batch or increment of units produced as opposed to assigning these costs per quarter. From the data, it can be determined that production batches/increments increase in quarters 2 and 4. This actually illustrates the seasonal demand for product TC-1. By doing the following:

Original Manufacturing Overhead:
 Quarter 1 - \$105,000
 Quarter 2 - \$153,000

Quarter 3 - \$97,000
 Quarter 4 - \$125,000
 Total Manufacturing Overhead - \$480,000

Batches/Increments per Quarter:

Quarter 1 - 5
 Quarter 2 - 11
 Quarter 3 - 4
 Quarter 4 - 10
 Total Batches/Increments - 30

$\$480,000/30 = \$16,000$ Manufacturing Overhead per Batch/Increment

You are essentially finding out the manufacturing overhead that applies to each batch rather than each quarter which will ultimately lower unit costs per batch. This is shown in the chart below:

+8

	Quarters			
Costs	1	2	3	4
Direct Materials	\$100,000	\$220,000	\$80,000	\$200,000
Direct Labor	60,000	132,000	48,000	120,000
Manufacturing Overhead	(5*16,000) 80,000	(11*16,000) 176,000	(4*16,000) 64,000	(10*16,000) 160,000
Total	\$240,000	\$528,000	\$192,000	\$480,000
Production in Batches/Increments	5	11	4	10
Unit Cost (per batch/increment)	\$48,000	\$48,000	\$48,000	\$48,000

BYP 3-2

The accountant of the Florida Beach Company a manufacturer of suntan lotion has retired. The company was obliged to bring in someone new. His name is Joe and he has 20 years of experience as an accountant. Although Joe seemed qualified for the job he wasn't because he had no experience with manufacturing accounting since he is more familiar with motels and the accounting decisions have to do with hospitality. Due to the fact that he has little experience in this field he made a mistake when he prepared the production cost report for the month of July. He

gathered all the right information but he instead of basing the cost report on equivalent units he based it on the physical units that were started into production. By basing the cost on the units started into production he got the production cost per gallon of the suntan lotion Surtan to be \$14.26. Joe calculated this number by adding up all the costs for the month and dividing the total by the 100,000 units that were started into production during the month of July:

$$\text{Unit cost/gallon of Surtan} = \frac{\$88,000 + 573,000 + 765,000}{100,000 \text{ units}} = \frac{\$1,426,000}{100,000 \text{ units}} = \$14.26/\text{gallon}$$

In his calculation he disregarded the units that were already in work in process at the end of the month along with the units that were transferred at the end of the month. Joe should familiarize himself with process costing and calculating the equivalent units using the weighted average method. To fix this problem Joe has to calculate the costs for materials and conversion costs on the basis of equivalent units. First, he should calculate the units to be accounted for and the total units accounted for:

Beg WIP inventory + units started into production = units completed and transferred out + units still in WIP

$$8,000 + 100,000 = X + 5,000$$

$$108,000 = X + 5,000$$

$$X = 103,000 \text{ units}$$

Secondly, Joe should use the answer of 103,000 units to calculate the cost of EU for materials and the EU for conversion costs:

$$\text{EU for materials} = \frac{\text{total materials} = \$21,000 + 573,000}{\text{EU } 103,000 + (5,000 * 100\%) \text{ } 108,000} = \frac{594,000}{108,000} = \$5.50$$

$$\text{EU for conversion costs} = \frac{\text{total C.C} = \$67,000 + 765,000}{\text{EU } 103,000 + (5,000 * 20\%) \text{ } 104,000} = \frac{832,000}{104,000} = \$8.00$$

$$\text{Total unit cost} = \$5.50 + 8.00 = \$13.50/\text{gallon}$$

Lastly, Joe should go back and correct the cost report for July because if he doesn't total unit costs will be overstated and the company will not be able to provide accurate financial reports to their external users. The production cost report should look like this:

Florida Beach Company
Production cost report
For the Month Ended July 31, 2014

	Equivalent units		
	Physical units	Materials	Conversion costs
<u>Quantities</u>			
Units to be accounted for			
Work in process, July 1	8,000		
Started into production	<u>100,000</u>		
Total units	108,000		
Units accounted for			
Transferred out	103,000	103,000	103,000
Work in process, July 31	<u>5,000</u>	<u>5,000</u>	<u>1,000 (5,000*20%)</u>
Total units	<u>108,000</u>	<u>108,000</u>	<u>104,000</u>
<u>Costs</u>			
Unit costs		Materials	Conversion Costs Total
Total cost		<u>594,000</u>	<u>832,000</u> <u>1,426,000</u>
Equivalent Units		<u>108,000</u>	<u>104,000</u>
Unit costs		<u>\$5.50</u>	<u>\$8.00</u> <u>\$13.50</u>
Costs to be accounted for			
Work in process, July 1			88,000
Started into production			<u>1,338,000</u>
Total costs			<u>1,426,000</u>
<u>Cost Reconciliation Schedule</u>			
Costs accounted for			
Transferred out (103,000*\$13.50)			1,390,500
Work in process, July 31			
Materials (5,000*\$5.50)			27,500
Conversion costs (1,000*\$8.00)			<u>8,000</u>
Total costs			<u>\$1,426,000</u>

+10