**AC556**

**Budgeting Project**

**TO THE STUDENT**

*Fantastic, Inc.* is a case study which allows you to incorporate numerous financial and managerial accounting concepts into a single business setting. You will take the position of the company controller who will prepare the budget for the year ended December 31, 2006, using the actual data from 2001 through 2005 and information given to you by various departments. You will prepare a report for the president of the company describing the strengths and weakness of the corporation as well as to provide suggestions for the future. In short, you will be responsible for the planning and control procedures for the company from an accounting standpoint.

In order to focus on important accounting concepts, certain simplifications are necessary to make this case manageable. The student should keep the following simplifications in mind while working on this case:

⚫ Work in process inventories will be ignored.

⚫ Financial and IRS tax will be the same.

⚫ Some projections for 2006 will be given.

⚫ Standards used for the 2006 budget will be the reasonably obtainable standards.

⚫ No hourly worker will work overtime.

⚫ All price changes will occur on January 1st and will remain in effect for the entire year.

⚫ The actual 2005 information is available while preparing the 2006 budget.

⚫ All debt transactions will occur either on January 1st or December 31st.

⚫ There are no bad debts.

The student should also keep in mind that the budgeting process is not an exact science; therefore, approximate figures provide adequate information for the decision maker. Figures should be rounded to the whole dollar throughout the budgeting process and the control applications. Since it is not possible to have a partial machine or person, certain figures will always have to be rounded up.

**GENERAL COMPANY INFORMATION**

*Fantastic, Inc.* is a paint manufacturing company that produces two qualities of paint, Super and Stupendous. The company was established eight years ago and began with only one type of paint. Sales of the original product have been rather stable in the past 5 years. In 2003, a second, higher quality paint was introduced, and sales of this product have increased each year due to reasonably effective sales efforts. The president is currently concerned about the potential inefficient use of capacity and the effect that this has on profits.

All raw materials are currently purchased from outside suppliers and no difficulty is foreseen in obtaining the necessary inventories for production in the future. All inventories are currently considered to be at the lowest safe levels possible given the delivery, production, and sales cycles.

Given the current production capacity, the company will have room for expansion for the next few years without building new facilities or expanding the current building. The company will also have the option of starting a second production shift to support future sales if necessary; therefore, increased production will be obtainable through purchasing additional equipment or increasing production hours. At this time, however, the president is not considering a second shift due the additional $1.00 per hour shift differential that would be necessary to pay the hourly second shift workers.

The company had a cash flow problem in 2005 but has always managed to make all payments on a timely basis. The president wishes to increase the amount of cash on hand in the future so that the company will have a greater margin of safety. To date, the company has not had difficulty obtaining financing for expansion and does not foresee any future difficulties in obtaining necessary funding for legitimate purposes.

The company has paid a consistently good dividend to the stockholders. The president would like to continue this policy in the future.

**DEPARTMENT STRUCTURE**

*Fantastic, Inc.* has two separate production departments - one for each of the paint types. Since the end products are not distinguishable, the company uses process costing employing a FIFO inventory.

Absorption costing is used for all outside reports. All non-direct fixed costs are allocated using various allocation bases as indicated throughout the project. The Company does not use a full ABC costing system; however, it does employee some of the ABC concepts in the budgeting process.

The administrative department handles all of the purchasing, accounting, and secretarial duties in a highly efficient manner. The need for separate departments is not necessary at this time.

**2005 INFORMATION**

SUPER STUPENDOUS

DEPARTMENT DEPARTMENT

Number of machines available 26 20

Annual capacity per machine 15,000 gallons 15,000 gallons

Annual production capacity 390,000 gallons 300,000 gallons

Machine hours available per machine 1,800 hours 1,800 hours

Standard machine hour per gallon .12 hour/gallon .12 hour/gallon

Standard labor hour per machine hour 1.25 labor hr/mach.hr 1.25 labor hr/mach.hr

Actual sales volume 420,000 gallons 268,200 gallons

Number of hourly employees 29 21

Supervisors (one per each eight hourly

employees) 4 3

Raw material prices

Cans 40¢ each 40¢ each

Pigment $2.75 per pound $3.75 per pound

Raw material usage

Cans one per gallon one per gallon

Pigment two pounds per gallon two pounds per gallon

Direct labor rate $8.25 per hour $8.25 per hour

**2006 PROJECTED SALES INFORMATION**

The sales department feels very good about the prospects for 2006. The reputation of the new product, Stupendous Paint, has increased significantly due to effective adverting in the past few years. The sales department is ready to launch a major advertising campaign which is expected to result in the trend of the last three year to continue for the Stupendous brand even with a small price increase per gallon.

Super Paint has been produced since the company began production. The sales level of this product has been rather stagnant for the last 5 years, and that trend is expected to continue in the future.

The following information regarding the two products has been gathered:

Super Stupendous

Paint Paint

Anticipated 2006 Sales price $10.30 per gallon $15.45 per gallon

Actual 2001 Sales 411,000 gallons None  
Actual 2002 Sales 412,000 gallons None  
Actual 2003 Sales 405,000 gallons 186,250 gallons  
Actual 2004 Sales 430,000 gallons 223,500 gallons  
Actual 2005 Sales 420,000 gallons 268,200 gallons

You have made the following conclusions about the two different products:

Super Paint

* Sales growth in units will continue to be stagnant.
* The more recent years are more representative of continuing unit sales than years in the further past.
* Exponential Smoothing will be an appropriate unit sales projection method to use.

Stupendous Paint

* Unit sales growth will continue on its current increasing trend
* An exponential growth function with the year being the independent variable and the sales volume being the dependent variable will be an appropriate sales projection method.

**2006 DIRECT MATERIAL AND INVENTORY BUDGET INFORMATION**

The production department worked in conjunction with both the sales and purchasing departments in developing desired projected inventory levels for December 31, 2006. Information regarding beginning and desired ending inventories for 2006 are as follows:

Beginning inventory Ending inventory

Cans 56,550 cans 61,700 cans

Pigment for Super Paint 63,300 pounds 70,000 pounds

Pigment for Stupendous Paint 49,700 pounds 53,750 pounds

Finished Goods Inventory

Super Paint 31,700 gallons 35,000 gallons

Stupendous Paint 24,850 gallons 27,000 gallons

The following direct material price increases are expected to occur on January 1, 2006, and remain effective for the entire year:

Price increase expected

Cans 2¢ each

Pigments

Super Paint $0.14 increase over 2005 prices

Stupendous Paint $0.19 increase over 2005 prices

Inventories are accounted for using the FIFO method.  
**Hint:** Remember that each gallon of paint requires two pounds of pigment.

**2006 DIRECT LABOR BUDGET INFORMATION**

During 2005, a new contract was signed with the union. As part of that agreement, no worker can work in more than one department, and no single worker can work over 2,000 hours during the year. This means that for every 2,000 hours of labor that is required for production in each department, one hourly employee is needed. For example, if a department needs 10,150 labor hours during the year, six employees will be needed (10,150 total hours /2,000 per employee = 5.075 which needs to be rounded to 6 employees).

The standard direct labor rate will increase $0.25 per hour over the 2005 rate.

Additional information regarding employee benefits is included in the section on manufacturing overhead.

**2006 OVERHEAD BUDGET INFORMATION**

The following information is available regarding the actual overhead costs incurred for 2005:

Variable costs Fixed costs

Indirect materials 20¢ per gallon

Indirect labor annual rate $50,000 per supervisor

Hourly employee fringe benefits 20% of wages

Hourly health benefits $1,500 per employee

Supervisor fringe benefits 20% supervisor’s salaries

Supervisor health benefits $1,500 per employee

Utilities 40¢ per machine hour

Maintenance 20¢ per machine hour \*$10,000 annually

Insurance \*$50,000 annually

Property taxes \*$10,000 annually

Supplies \*$5,000 annually

Depreciation (items held during 2005) \*\*$250,000 annually

\*These items are allocated to departments based upon production levels in gallons.

\*\*The 2005 allocation was $141,300 to the Super Department and $108,700 to the Stupendous

Department

It is expected that the following changes will occur during 2006:

Variable costs Fixed costs

Indirect materials No change

Indirect labor annual rate 2.5% increase

Hourly fringe benefits No change

Hourly health benefits Increase $200/employee

Supervisor fringe benefits No change

Supervisor fringe benefits Increase$200/supervisor

Utilities No change

Maintenance Increase 5¢/MHr\* Increase $500 annually

Insurance Increase $500 annually

Property taxes Increase 8.0%

Supplies Increase $200 annually

Depreciation (items held during 2005) No change

Depreciation (machinery purchased in 2006) Five year life\*\*

\*Mhr stands for Machine hours.

\*\* There will be no salvage value for the equipment purchased in 2006

**2006 SALES DEPARTMENT INFORMATION**

The sales department consists of 10 representatives who report directly to the president. Each individual is on a base salary plus a commission, and the sales reps also submit meal and entertainment expenses for reimbursement. (In 2005, the meal and entertainment expenses were limited to $50 per week per sales representative based upon a 52 week year.)

The following information is available regarding the actual selling costs incurred for 2005:

Variable Fixed

Commissions 35¢ per gallon sold

Salaries $15,000 per sales representative

Fringe benefits 20% of commissions 20% of salaries

Health benefits $1,500 per sales representative

Advertising $10 per 100 gallons sold

Meals & entertainment $50 per week per representative

Depreciation $7,500

It is felt that the company will not need any additional sales representatives for 2006. It is expected that the following

changes will occur in 2006:

Variable Fixed

Commissions No change

Salaries No change

Fringe benefits No change No change

Health benefits Increase $200 per representative

Advertising $12 per 100 gallons sold

Meals & entertainment $60 per week per representative

Depreciation No change

**2006 ADMINISTRATIVE BUDGET INFORMATION**

The administrative department consists of the president and an office staff of eight who handle the secretarial, purchasing, and accounting duties. (Total of nine people.) The following information is available regarding the 2005 actual costs:

Variable Fixed

Salaries $250,000 annual

Fringe benefits 20% of salaries

Health benefits $1,500 per employee

Professional fees $20,000 annually

Office supplies 3¢ per gallon sold

Telephone 1.5¢ per gallon sold

Depreciation $6,000 annually

It is felt that the level of the office and administrative staff will be adequate for the coming year. It is expected that the

following changes will occur in 2006:

Variable Fixed

Salaries Increase 3% annually

Fringe benefits No change

Health benefits Increase $200 per employee

Professional fees Increase of $1,500

Office supplies Increase 1¢ per gallon sold

Telephone Increase ¼¢ per gallon sold

Depreciation No change

**2006 INCOME TAX INFORMATION**

The current federal and state income tax rates total 40%. All taxes for the year will be paid by the end of the year

which means that there will be no accrued taxes on December 31, 2006.

**2006 ACCOUNTS RECEIVABLE INFORMATION**

It is expected sales will occur evenly throughout the year and that there will be no cash sales. 75% of monthly sales

will be collected in the month following the sale, and the remaining 25% will be collected by the end of the second

month. No bad debts are anticipated.

**2006 ACCOUNTS PAYABLE INFORMATION**

This account represents the purchases for raw materials only. It is expected that purchases will be made evenly throughout

the year, and that all purchases will be paid for during the month following the purchase.

**2006 WAGE AND SALARY INFORMATION**

The accrued wage account will include all direct labor, indirect labor, sales commissions and salaries, and administrative salaries. All wages are earned evenly throughout the year, and employees are paid twice each month. On December 31, 2006, the accrued wages will include wages representing one full payroll period.

**2006 ACCRUED OTHER INFORMATION**

This account includes all other cash expenses not included in Account Payable and Accrued Wages. It is the company's policy to pay all other expenses during the month following the purchase. These expenses will be incurred evenly throughout the year. The 20% fringe benefits will be paid on all wages, salaries, and commissions.

**2006 PROPERTY, PLANT AND EQUIPMENT INFORMATION**

Property, plant and equipment consist of the following on December 31, 2005:

Property and plant $750,000

Equipment 1,025,000

Total Property, Plant and Equipment $1,775,000

Each additional machine that is needed to support the production level expected during 2006 will cost $30,000 and be depreciated over five years using the straight-line method. Assume that any equipment purchases are made on the first day of the January and are operational throughout the entire year.

No new equipment will be needed for the sales and administrative departments.

**2006 LONG-TERM DEBT INFORMATION**

A long-term debt repayment (principle only) will be made on December 31, 2006 for $255,000. The interest rate charged on the debt balance throughout 2006 will be 7.5% and will be paid on December 31, 2006.

If an additional machine is purchased, $5,000 will be paid in cash and the remaining $25,000 will be financed at the 7.5% rate. This same proportion of cash/additional debt will be applied to all additional equipment purchased during 2006. Again, any purchases will be made on January 1, 2006.

**DIVIDEND POLICY**

*Fantastic, Inc.'s* policy is to pay dividends on the last day of each quarter. The total anticipated dividends for 2006 are $2.50 per share.

**OTHER INFORMATION**

Unless otherwise noted, information will remain unchanged from 2005 through 2006.

**2005 BALANCE SHEET AND INCOME STATEMENT**

The Income Statement and Balance Sheet for *Fantastic, Inc.* for 2005 are as follows:

FANTASTIC, INC

STATEMENT OF INCOME

FOR THE YEAR ENDED DECEMBER 31, 2005

Sales $8,270,000

Cost of goods sold 6,620,946

Gross Margin 1,649,054

Selling expenses $581,060

Office& administrative expenses 373,010 954,070

Operating income 694,984

Interest expense 85,950

Income before tax 609,034

Income tax 243,614

Net income $365,420

FANTASTIC, INC.

BALANCE SHEET

DECEMBER 31, 2005

ASSETS

Cash $150,000

Accounts receivable 827,000

Inventory-Raw materials 383,037

Inventory-Finished goods 551,835

Plant and equipment 1,775,000

Less Accumulated Depreciation (615,000)

Total Assets $3,071,872

LIABILITIES

Accounts payable $383,016

Accrued wages 76,097

Accrued other 74,083

Long-term debt 1,125,000

Total liabilities 1,658,196

STOCKHOLDERS' EQUITY

Common stock, $5 par value $400,000

Additional paid-in 495,000

Retained earnings 518,676

Total Stockholders' equity 1,413,676

Total liabilities and

stockholders' equity $3,071,872

**REQUIREMENTS:**

**Part A**

1. Prepare the following budgets for the fiscal year ending December 31, 2006 using the **provided spreadsheets**. Note: it is required to use the provided worksheets using Excel formulas.

a. A sales projection **in units** using the methods suggested. (10 points)

b. Sales budget (10 points)

c. Production budget (10 points)

d. Direct materials budget (10 points)

e. Direct labor budget (10 points)

f. Manufacturing overhead budget (10 points)

g. Projected Cost of Goods Manufactured (absorption costing) (10 points)

*Loss of 20 points for not using the provided Excel worksheets*

**Part B**

h. Capital expenditures budget (10 points)

i. Selling expenses budget (10 points)

j. Administrative expenses budget (10 points)

k. Proforma income statement (absorption costing) (20 points)

l. Cash budget (25 points)

m. Proforma balance sheet (25 points)

2. Comment on the strengths and weaknesses of this company. What concerns do you have? What recommendations do you have for the future? (10 points)

*Loss of 25 points for not using provided Excel worksheets.*