Earned Value Management

Project : SYSTEM A, Internal Component Replacement

BUDGET

* $25,000 total budget for project
* $12,500 expended so far

1. What was the planned cost per day?

Answer.

\_\_$25,000 / 50 days = $500 per day \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What was the planned cost per unit?

Answer.

\_\_ $25,000 / 500 = $50 per unit\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. After 24 days you have received this Field Report (above).

What is the Budgeted Cost of Work Scheduled, and the Budgeted Cost of Work Performed?

Answer.

BCWS (PV)\_\_= $500 per day X 24 days = $12,000\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BCWP (EV)\_\_= $50 per unit X 296 successful units = $14,800\_\_\_\_\_\_\_

4. From the Field Report what is the Actual Cost of Work Performed?

Answer.

ACWP (AC)\_\_= $12,500 expended so far\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Calculate the Cost Variance.

Answer.

CV = EV – AC = $14,800 - $12,500 = $2,300 cost saving so far \_\_\_\_\_\_\_\_

6. Calculate the Schedule Variance.

Answer.

SV = EV – PV = $14,800 - $12,000 = $2,800 ahead of schedule \_\_\_\_\_\_\_

7. Calculate the Cost Performance Index.

Answer.

CPI = EV / AC = $14,800 / $12,500 = 1.18 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NOTE: A number greater than 1.0 is good.

8. Calculate the Schedule Performance Index.

Answer.

SPI = EV / PV = $14,800 / $12,000 = 1.23 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NOTE: A number greater than 1.0 is good.

9. Calculate the Critical Ratio.

Answer.

CR = CPI x SPI = 1.18 x 1.23 = 1.45 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NOTE: A number between 0.9 and 1.2 is normal.

10. Calculate the Percent of Work complete, using the above ratios.

Answer.

% Complete = PC = (EV / BAC) x 100 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

= ($14,800 / $25,000) x 100 = 59.2% \_\_\_\_\_\_\_\_\_\_\_

11. Calculate the Percentage of money spent.

Answer. % Spent = PS = (AC / BAC ) x 100 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

= $12,500 / $25,000 x 100 = 50%\_\_\_\_\_\_\_\_\_\_

12. Using the project management tool of Earned Value Management,

as a Professional Project Manager what would you do to improve the

project outcome?

Answer. So far, this project is in good shape for Time and Cost. However,

re-work is usually expensive and can take a lot of time. So, try

going a little slower or spend some money to reduce the failure

rate. You can afford this because CR is greater than 1.2