

Exercise 10-4 (20 minutes)

1. Number of items shipped	120,000
Standard direct labor-hours per item	<u>× 0.02</u>
Total direct labor-hours allowed	2,400
Standard variable overhead cost per hour	<u>× \$3.25</u>
Total standard variable overhead cost	<u>\$ 7,800</u>
Actual variable overhead cost incurred.....	\$7,360
Total standard variable overhead cost (above) ...	<u>7,800</u>
Total variable overhead variance.....	<u>\$ 440</u> Favorable

Actual Hours of Input, at the Actual Rate (AH × AR)	Actual Hours of Input, at the Standard Rate (AH × SR)	Standard Hours Allowed for Output, at the Standard Rate (SH × SR)
<u>2,300 hours × \$3.20 per hour* = \$7,360</u>	<u>2,300 hours × \$3.25 per hour = \$7,475</u>	<u>2,400 hours × \$3.25 per hour = \$7,800</u>
↑	↑	↑
Variable Overhead Spending Variance, \$115 F	Variable Overhead Efficiency Variance, \$325 F	
Total Variance, \$440 F		

*\$7,360 ÷ 2,300 hours = \$3.20 per hour

Alternatively, the variances can be computed using the formulas:

Variable overhead spending variance:

$$\begin{aligned} \text{AH}(\text{AR} - \text{SR}) &= 2,300 \text{ hours } (\$3.20 \text{ per hour} - \$3.25 \text{ per hour}) \\ &= \$115 \text{ F} \end{aligned}$$

Variable overhead efficiency variance:

$$\begin{aligned} \text{SR}(\text{AH} - \text{SH}) &= \$3.25 \text{ per hour } (2,300 \text{ hours} - 2,400 \text{ hours}) \\ &= \$325 \text{ F} \end{aligned}$$