LAMPIRAN

Lampiran 1 Perhitungan Availability Rate

a. Hari Ke-2

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{261{,}79 \text{ menit}}{385{,}32 \text{ menit}} \times 100\% = \mathbf{67{,}94\%}$$

b. Hari Ke-3

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{261{,}65 \text{ menit}}{384{,}39 \text{ menit}} \times 100\% = \mathbf{68{,}07\%}$$

c. Hari Ke-4

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{260{,}49 \text{ menit}}{387{,}93 \text{ menit}} \times 100\% = \mathbf{67{,}15\%}$$

d. Hari Ke-5

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{259{,}67 \text{ menit}}{386{,}91 \text{ menit}} \times 100\% = \mathbf{67{,}11\%}$$

e. Hari Ke-6

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{265{,}18 \text{ menit}}{387{,}77 \text{ menit}} \times 100\% = \mathbf{68{,}39\%}$$

f. Hari Ke-7

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{254{,}74 \text{ menit}}{384{,}36 \text{ menit}} \times 100\% = \mathbf{66{,}28\%}$$

g. Hari Ke-8

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{262{,}65 \text{ menit}}{386{,}19 \text{ menit}} \times 100\% = \mathbf{68{,}01\%}$$

h. Hari Ke-9

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{262{,}73 \text{ menit}}{386{,}66 \text{ menit}} \times 100\% = \mathbf{67{,}95\%}$$

i. Hari Ke-10

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{258{,}84 \text{ menit}}{384{,}99 \text{ menit}} \times 100\% = \mathbf{67{,}23\%}$$

j. Hari Ke-11

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{265{,}48 \text{ menit}}{387{,}85 \text{ menit}} \times 100\% = \mathbf{68{,}45\%}$$

k. Hari Ke-12

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{261{,}26 \text{ menit}}{386{,}16 \text{ menit}} \times 100\% = \mathbf{67{,}66\%}$$

l. Hari Ke-13

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{261{,}87 \text{ menit}}{384{,}50 \text{ menit}} \times 100\% = \mathbf{68{,}11\%}$$

m. Hari Ke-14

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{258{,}94 \text{ menit}}{386{,}67 \text{ menit}} \times 100\% = \mathbf{66{,}97\%}$$

n. Hari Ke-15

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{262{,}02 \text{ menit}}{383{,}66 \text{ menit}} \times 100\% = \mathbf{68{,}29\%}$$

o. Hari Ke-16

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{260{,}85 \text{ menit}}{385{,}94 \text{ menit}} \times 100\% = \mathbf{67{,}59\%}$$

p. Hari Ke-17

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{261{,}16 \text{ menit}}{388{,}64 \text{ menit}} \times 100\% = \mathbf{67{,}20\%}$$

q. Hari Ke-18

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{257{,}71 \text{ menit}}{382{,}60 \text{ menit}} \times 100\% = \mathbf{67{,}36\%}$$

r. Hari Ke-19

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{258{,}19 \text{ menit}}{386{,}05 \text{ menit}} \times 100\% = \mathbf{66{,}88\%}$$

s. Hari Ke-20

$$\textit{Availability Rate} = \frac{\textit{Operating Time}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Availability Rate} = \frac{257{,}03 \text{ menit}}{382{,}35 \text{ menit}} \times 100\% = \mathbf{67{,}22\%}$$

Lampiran 2 Perhitungan *Performance Efficiency*

a. Hari Ke-2

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{837{,}85 \text{ x } 0{,}20}{261{,}79} \text{ x } 100\% \textbf{ = 64,01\%}$$

b. Hari Ke-3

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{828{,}79 \text{ x } 0{,}20}{261{,}65} \text{ x } 100\% \textbf{ = 63,35\%}$$

c. Hari Ke-4

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{812{,}85 \text{ x } 0{,}20}{260{,}49} \text{ x } 100\% \textbf{ = 62,41\%}$$

d. Hari Ke-5

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{829{,}25 \text{ x } 0{,}20}{259{,}67} \text{ x } 100\% \textbf{ = 63,87\%}$$

e. Hari Ke-6

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{815{,}29 \text{ x } 0{,}20}{265{,}18} \text{ x } 100\% \textbf{ = 61,49\%}$$

f. Hari Ke-7

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{823{,}47 \text{ x } 0{,}20}{254{,}74} \text{ x } 100\% \textbf{ = 64,65\%}$$

g. Hari Ke-8

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{819{,}19 \text{ x } 0{,}20}{262{,}65} \text{ x } 100\% \textbf{ = 62,38\%}$$

h. Hari Ke-9

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{811{,}45 \text{ x } 0{,}20}{262{,}73} \text{ x } 100\% \textbf{ = 61,77\%}$$

i. Hari Ke-10

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{825{,}91 \text{ x } 0{,}20}{258{,}84} \text{ x } 100\% \textbf{ = 63,82\%}$$

j. Hari Ke-11

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{830{,}38 \text{ x } 0{,}20}{265{,}48} \text{ x } 100\% \textbf{ = 62,56\%}$$

k. Hari Ke-12

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{824{,}12 \text{ x } 0{,}20}{261{,}26} \text{ x } 100\% \textbf{ = 63,09\%}$$

l. Hari Ke-13

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{803{,}90 \text{ x } 0{,}20}{261{,}87} \text{ x } 100\% \textbf{ = 61,40\%}$$

m. Hari Ke-14

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{794{,}56 \text{ x } 0{,}20}{258{,}94} \text{ x } 100\% \textbf{ = 61,37\%}$$

n. Hari Ke-15

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{790{,}65 \text{ x } 0{,}20}{262{,}02} \text{ x } 100\% \textbf{ = 60,35\%}$$

o. Hari Ke-16

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{824{,}70 \text{ x } 0{,}20}{261{,}16} \text{ x } 100\% \textbf{ = 60,49\%}$$

p. Hari Ke-17

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{803{,}13 \text{ x } 0{,}20}{257{,}71} \text{ x } 100\% \textbf{ = 63,16\%}$$

q. Hari Ke-18

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{781{,}54 \text{ x } 0{,}20}{258{,}19} \text{ x } 100\% \textbf{ = 62,33\%}$$

r. Hari Ke-19

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{789{,}30 \text{ x } 0{,}20}{257{,}03} \text{ x } 100\% \textbf{ = 60,54\%}$$

s. Hari Ke-20

$$\textit{Performance Efficiency} = \frac{\text{Actual } \textit{Cutt Length} \text{ x Ideal } \textit{Cycle Time}}{\textit{Operating Time}} \text{ x } 100\%$$

$$\textit{Performance Efficiency} = \frac{824{,}70 \text{ x } 0{,}20}{261{,}16} \text{ x } 100\% \textbf{ = 61,42\%}$$

Lampiran 3 Perhitungan *Rate Of Quality*

a. Hari Ke-2

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.544 - 24}{2.544} \times 100\% = \mathbf{99,06\%}$$

b. Hari Ke-3

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.496 - 17}{2.496} \times 100\% = \mathbf{99,32\%}$$

c. Hari Ke-4

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.276 - 26}{2.276} \times 100\% = \mathbf{98,86\%}$$

d. Hari Ke-5

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.377 - 31}{2.377} \times 100\% = \mathbf{98,70\%}$$

e. Hari Ke-6

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.287 - 20}{2.287} \times 100\% = \mathbf{99,13\%}$$

f. Hari Ke-7

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.351 - 17}{2.351} \times 100\% = \mathbf{99,28\%}$$

g. Hari Ke-8

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.332 - 24}{2.332} \times 100\% = \mathbf{98,97\%}$$

h. Hari Ke-9

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.314 - 27}{2.314} \times 100\% = \mathbf{98,83\%}$$

i. Hari Ke-10

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.389 - 30}{2.389} \times 100\% = \mathbf{98,74\%}$$

j. Hari Ke-11

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.261 - 20}{2.261} \times 100\% = \mathbf{99,12\%}$$

k. Hari Ke-12

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.363 - 28}{2.363} \times 100\% = \mathbf{98,82\%}$$

l. Hari Ke-13

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.355 - 24}{2.355} \times 100\% = \mathbf{98,98\%}$$

m. Hari Ke-14

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.274 - 27}{2.274} \times 100\% = \mathbf{98,81\%}$$

n. Hari Ke-15

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.400 - 16}{2.400} \times 100\% = \mathbf{99,33\%}$$

o. Hari Ke-16

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.358 - 13}{2.358} \times 100\% = \mathbf{99,45\%}$$

p. Hari Ke-17

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.319 - 33}{2.319} \times 100\% = \mathbf{98,58\%}$$

q. Hari Ke-18

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.439 - 19}{2.439} \times 100\% = \mathbf{99,22\%}$$

r. Hari Ke-19

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.344 - 25}{2.344} \times 100\% = \mathbf{98,93\%}$$

s. Hari Ke-20

$$\textit{Rate Of Quality} = \frac{\text{Jumlah Aktual Potong} - \text{Jumlah Cacat}}{\text{Jumlah Aktual Potong}} \times 100\%$$

$$\textit{Rate Of Quality} = \frac{2.287 - 30}{2.287} \times 100\% = \mathbf{98,69\%}$$

Lampiran 4 Perhitungan *Equipment Failure Losses*

a. Hari Ke-2

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}11}{385{,}32} \text{ x } 100\% = \mathbf{19{,}23\%}$$

b. Hari Ke-3

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}17}{384{,}39} \text{ x } 100\% = \mathbf{18{,}78\%}$$

c. Hari Ke-4

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}43}{387{,}93} \text{ x } 100\% = \mathbf{19{,}19\%}$$

d. Hari Ke-5

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{73{,}97}{386{,}91} \text{ x } 100\% = \mathbf{19{,}12\%}$$

e. Hari Ke-6

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{73{,}04}{387{,}77} \text{ x } 100\% = \mathbf{18{,}84\%}$$

f. Hari Ke-7

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{76{,}19}{384{,}36} \text{ x } 100\% = \mathbf{19{,}82\%}$$

g. Hari Ke-8

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}17}{386{,}19} \text{ x } 100\% = \mathbf{19{,}21\%}$$

h. Hari Ke-9

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}75}{386{,}66} \text{ x } 100\% = \mathbf{18{,}81\%}$$

i. Hari Ke-10

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{73{,}87}{384{,}99} \text{ x } 100\% = \mathbf{19{,}19\%}$$

j. Hari Ke-11

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}88}{387{,}85} \text{ x } 100\% = \mathbf{18{,}79\%}$$

k. Hari Ke-12

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}32}{386{,}16} \text{ x } 100\% = \mathbf{19{,}25\%}$$

l. Hari Ke-13

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}34}{384{,}50} \text{ x } 100\% = \mathbf{18{,}81\%}$$

m. Hari Ke-14

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{75{,}41}{386{,}67} \text{ x } 100\% = \mathbf{19{,}50\%}$$

n. Hari Ke-15

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}39}{383{,}66} \text{ x } 100\% = \mathbf{18{,}87\%}$$

o. Hari Ke-16

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{72{,}76}{385{,}94} \text{ x } 100\% = \mathbf{18{,}85\%}$$

p. Hari Ke-17

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{75{,}05}{388{,}64} \text{ x } 100\% = \mathbf{19{,}31\%}$$

q. Hari Ke-18

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}19}{382{,}60} \text{ x } 100\% = \mathbf{19{,}39\%}$$

r. Hari Ke-19

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{74{,}28}{386{,}05} \text{ x } 100\% = \mathbf{19{,}50\%}$$

s. Hari Ke-20

$$\textit{Equipment Failure Losses} = \frac{\text{Total } \textit{Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Equipment Failure Losses} = \frac{75{,}94}{382{,}35} \text{ x } 100\% = \mathbf{19{,}86\%}$$

Lampiran 5 Perhitungan *Set Up Adjustment Losses*

a. Hari Ke-2

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}42}{385{,}32} \text{ x } 100\% = \mathbf{12{,}83\%}$$

b. Hari Ke-3

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{50{,}57}{384{,}39} \text{ x } 100\% = \mathbf{13{,}16\%}$$

c. Hari Ke-4

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{53{,}01}{387{,}93} \text{ x } 100\% = \mathbf{13{,}66\%}$$

d. Hari Ke-5

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{53{,}27}{386{,}91} \text{ x } 100\% = \mathbf{13{,}77\%}$$

e. Hari Ke-6

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}55}{387{,}77} \text{ x } 100\% = \mathbf{12{,}78\%}$$

f. Hari Ke-7

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{53{,}43}{384{,}36} \text{ x } 100\% = \mathbf{13{,}90\%}$$

g. Hari Ke-8

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}37}{386{,}19} \text{ x } 100\% = \mathbf{12{,}78\%}$$

h. Hari Ke-9

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{51{,}18}{386{,}66} \times 100\% = \mathbf{13{,}24\%}$$

i. Hari Ke-10

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{52{,}28}{384{,}99} \times 100\% = \mathbf{13{,}58\%}$$

j. Hari Ke-11

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}49}{387{,}85} \times 100\% = \mathbf{12{,}76\%}$$

k. Hari Ke-12

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{50{,}58}{386{,}16} \times 100\% = \mathbf{13{,}10\%}$$

l. Hari Ke-13

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{50{,}29}{384{,}50} \times 100\% = \mathbf{13{,}08\%}$$

m. Hari Ke-14

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{55{,}32}{386{,}67} \times 100\% = \mathbf{13{,}53\%}$$

n. Hari Ke-15

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \times 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}25}{383{,}66} \times 100\% = \mathbf{12{,}84\%}$$

o. Hari Ke-16

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{52{,}33}{385{,}94} \text{ x } 100\% = \mathbf{13{,}56\%}$$

p. Hari Ke-17

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{52{,}43}{388{,}64} \text{ x } 100\% = \mathbf{13{,}49\%}$$

q. Hari Ke-18

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{50{,}70}{382{,}60} \text{ x } 100\% = \mathbf{13{,}25\%}$$

r. Hari Ke-19

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{52{,}58}{386{,}05} \text{ x } 100\% = \mathbf{13{,}62\%}$$

s. Hari Ke-20

$$\textit{Set Up Adjustment Losses} = \frac{\textit{Set Up Downtime}}{\textit{Loading Time}} \text{ x } 100\%$$

$$\textit{Set Up Adjustment Losses} = \frac{49{,}38}{382{,}35} \text{ x } 100\% = \mathbf{12{,}91\%}$$

Lampiran 6 Perhitungan *Idle and Minor Stoppage Losses*

a. Hari Ke-2

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.226{,}34 - 837{,}85) \text{ x } 0{,}20}{385{,}32} \text{ x } 100\% = \mathbf{20{,}16\%}$$

b. Hari Ke-3

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.216{,}87 - 828{,}79) \text{ x } 0{,}20}{384{,}39} \text{ x } 100\% = \mathbf{20{,}19\%}$$

c. Hari Ke-4

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.212{,}22 - 812{,}85) \text{ x } 0{,}20}{387{,}93} \text{ x } 100\% = \mathbf{20{,}59\%}$$

d. Hari Ke-5

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.231{,}90 - 829{,}25) \text{ x } 0{,}20}{386{,}91} \text{ x } 100\% = \mathbf{20{,}81\%}$$

e. Hari Ke-6

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.239{,}67 - 815{,}29) \text{ x } 0{,}20}{387{,}77} \text{ x } 100\% = \mathbf{21{,}89\%}$$

f. Hari Ke-7

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.223{,}78 - 823{,}47) \text{ x } 0{,}20}{384{,}36} \text{ x } 100\% = \mathbf{20{,}83\%}$$

g. Hari Ke-8

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.215{,}45 - 819{,}19) \text{ x } 0{,}20}{386{,}19} \text{ x } 100\% = \mathbf{20{,}52\%}$$

h. Hari Ke-9

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.229{,}03 - 811{,}45) \text{ x } 0{,}20}{386{,}66} \text{ x } 100\% = \mathbf{21{,}60\%}$$

i. Hari Ke-10

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.224{,}21 - 825{,}91) \text{ x } 0{,}20}{384{,}99} \text{ x } 100\% = \mathbf{20{,}69\%}$$

j. Hari Ke-11

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.256{,}45 - 830{,}38) \text{ x } 0{,}20}{387{,}85} \text{ x } 100\% = \mathbf{21{,}97\%}$$

k. Hari Ke-12

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.219{,}76 - 824{,}12) \text{ x } 0{,}20}{386{,}16} \text{ x } 100\% = \mathbf{20{,}49\%}$$

l. Hari Ke-13

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.215{,}89 - 803{,}90) \text{ x } 0{,}20}{384{,}50} \text{ x } 100\% = \mathbf{21{,}43\%}$$

m. Hari Ke-14

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.195{,}65 - 794{,}56) \text{ x } 0{,}20}{386{,}67} \text{ x } 100\% = \mathbf{20{,}75\%}$$

n. Hari Ke-15

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.219{,}12 - 790{,}65) \text{ x } 0{,}20}{383{,}66} \text{ x } 100\% = \mathbf{22{,}34\%}$$

o. Hari Ke-16

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.215{,}77 - 788{,}98) \text{ x } 0{,}20}{385{,}94} \text{ x } 100\% = \mathbf{22{,}12\%}$$

p. Hari Ke-17

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.208{,}56 - 824{,}70) \text{ x } 0{,}20}{388{,}64} \text{ x } 100\% = \mathbf{19{,}75\%}$$

q. Hari Ke-18

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.204{,}15 - 803{,}13) \text{ x } 0{,}20}{382{,}60} \text{ x } 100\% = \mathbf{20{,}96\%}$$

r. Hari Ke-19

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.198{,}45 - 781{,}54) \text{ x } 0{,}20}{386{,}05} \text{ x } 100\% = \mathbf{21{,}60\%}$$

s. Hari Ke-20

$$= \frac{\text{(Target } \textit{Cutting} \text{ - Aktual } \textit{Cut}\text{) x Ideal } \textit{Cycle Time}}{\textit{Loading Time}} \text{ x } 100\%$$

$$= \frac{(1.195{,}32 - 789{,}30) \text{ x } 0{,}20}{382{,}35} \text{ x } 100\% = \mathbf{21{,}24\%}$$