

APPENDIX C-28

RUNNING LOT SAMPLING TABLE (SURVEY TYPE)

The following table will be used for Daily Sampling.

LOT SIZE

<u>MONTHLY PROCESSING RATE</u>	<u>MONTHLY SAMPLE SIZE</u>	<u>DAILY SAMPLE SIZE NORMAL</u>	<u>DAILY SAMPLE SIZE REDUCED</u>
1 to 3,200	200	10	6
3,201 to 10,000	315	15	10
10,001 to 35,000	500	25	15
35,001 to 150,000	800	40	24
150,001 and Over	1250	60	37

1. The purpose in using a Running Lot Sampling Table is not to accept or reject a lot but to compute the Quality Rate (QR) (performance) based upon sampling results.
2. The lot size presented above is the Monthly Processing Rate per month, i.e., receipts and shipments.
3. The Monthly Sample Size is the cumulative sample size applicable to the appropriate lot size--Monthly Processing Rate.
4. The Daily Sample Size Normal is the number of samples to be selected each work day under normal sampling to achieve the total monthly cumulative sample size.
5. Under this system of utilizing a Daily Sampling against a Monthly Cumulative Sample Size determination of performance against an established Acceptable Quality Rate (AQR) must be determined and computed on a cumulative basis.

EXAMPLE: Assume that lot size of 3,000 processings per month is appropriate with an established AQR of 95.0% and Daily Sampling is prescribed. Begin with normal sampling. Each day draw a random sample of ten units and inspect for defects. Assume the following results for consecutive daily checks:

<u>DAY OF WEEK</u>	<u>UNITS SAMPLED</u>	<u>NUMBER ACCEPTABLES</u>	<u>CUM RESULTS</u>	<u>CUM QR</u>
Monday	10	10	$\frac{10 \times 100}{10}$	100.0
Tuesday	10	9	$\frac{19 \times 100}{20}$	95.0
Wednesday	10	9	$\frac{28 \times 100}{30}$	93.3
Thursday	10	9	$\frac{37 \times 100}{40}$	92.5
Friday	10	10	$\frac{47 \times 100}{50}$	94.0
Monday	10	10	$\frac{57 \times 100}{60}$	95.0
Tuesday	10	10	$\frac{67 \times 100}{70}$	95.7
Wednesday	10	10	$\frac{77 \times 100}{80}$	96.3

6. If the QR for three consecutive days is equal to or greater than the established AQR reduced sampling may be instituted.

7.
$$QR = \frac{\text{Number of Acceptable Units} \times 100}{\text{Total Number of Units Inspected}}$$

The following table will be used for Weekly Sampling:

LOT SIZE

<u>MONTHLY PROCESSING RATE</u>	<u>MONTHLY SAMPLE SIZE</u>	<u>WEEKLY SAMPLE SIZE NORMAL</u>	<u>WEEKLY SAMPLE SIZE REDUCED</u>
1 to 3,200	200	50	30
3,201 to 10,000	315	79	48
10,001 to 35,000	500	125	75
35,001 to 150,000	800	200	120
150,001 and Over	1250	312	187

1. The purpose in using a Running Lot Sampling Table is not to accept or reject a lot but to compute the QR (performance) based upon sampling results.

2. The lot size presented above is the monthly processing rate per month, i.e., receipts and shipments.

3. The Monthly Sample Size is the cumulative sample size applicable to the appropriate lot size--Monthly Processing Rate.

4. The Weekly Sample Size Normal is the number of samples to be selected each week under normal sampling to achieve the total monthly cumulated sample size.

5. Under this system of utilizing a Weekly Sampling against a monthly cumulative Sample Size determination of performance against an established AQR may be determined and computed on a cumulative basis.

EXAMPLE: Assume that lot size of 8,000 processing per month is appropriate with an established AQR of 96.0% and Weekly Sampling is prescribed. Begin with normal sampling. One day of each week--for four weeks draw a random sample of 79 units and inspect for defects. Assume the following results for consecutive weekly checks:

WEEK	UNITS DAY	NUMBER SAMPLED	ACCEPTABLES	CUM RESULTS	CUM QR
1	Monday	79	75	$\frac{75 \times 100}{79}$	94.9
2	Thursday	79	78	$\frac{153 \times 100}{158}$	96.8
3	Friday	79	70	$\frac{223 \times 100}{237}$	94.1
4	Wednesday	79	72	$\frac{295 \times 100}{316}$	93.4

6. If the QR for three consecutive weeks is equal to or greater than the established AQR reduced sampling may be instituted.

$$QR = \frac{\text{Number of Acceptable Units} \times 100}{\text{Total Number of Units Inspected}}$$

The following table will be used for Monthly Sampling:

LOT SIZE

MONTHLY PROCESSING RATE	MONTHLY NORMAL	SAMPLE SIZE REDUCED
1 to	12	12
13 to	90	13
91 to	280	40
281 to	500	50

<u>MONTHLY PROCESSING RATE</u>	<u>MONTHLY NORMAL</u>	<u>SAMPLE SIZE REDUCED</u>
501 to 1,200	125	80
1,201 to 3,200	200	120
3,201 to 10,000	315	189
10,001 to 35,000	500	300
35,001 to 150,000	800	480
150,001 and over	1250	750

1. The purpose of using a Running Lot Sampling Table is not to accept or reject a lot but to compute the QR (performance) based upon sampling results.

2. The lot size presented above is the monthly processing rate per month, i.e., receipts and shipments.

3. The Monthly Sample Size is the cumulative sample size applicable to the appropriate lot size--Monthly Processing Rate.

4. If the QR for three consecutive months is equal to or greater than the established AQR reduced sampling may be instituted.

5. $QR = \frac{\text{Number of Acceptable Units} \times 100}{\text{Total Number of Units Inspected}}$