

Sampling Plan Analyzer 2.0 Validation Package

Contains:

Sampling Plan Analyzer 2.0 Validation Protocol – Protocol TE-01-2

Sampling Plan Analyzer 2.0 Validation Final Report – Report TE-01-2

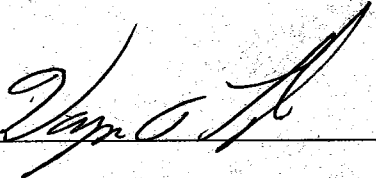
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Sampling Plan Analyzer 2.0 Validation Protocol

Protocol Number: TE-01-2

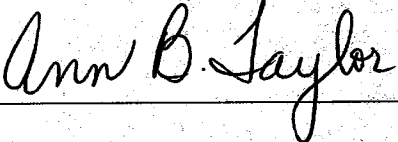
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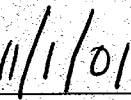
Dr. Wayne A. Taylor
Study Director



Date



Ann B. Taylor
President



Date

Sampling Plan Analyzer 2.0 Validation Protocol

Protocol Number: TE-01-2

1.0 Introduction

This protocol covers the validation of version 2.0 of Sampling Plan Analyzer. This program evaluates and selects acceptance sampling plans. These sampling plans are used to release product and in validation studies. The validation of this program is intended to demonstrate that the program correctly calculates the protection of any sampling plan that can be entered into it and that the sampling plans selected by the software provide the specified protection.

The current version of Sampling Plan Analyzer supports the following types of sampling plans:

Defective Units

- Single
- Double
- Multiple
- ANSI Z1.4
- Variables Single
- ANSI Z1.9

Defects Per Unit

- Single
- Double
- Multiple
- ANSI Z1.4

Defects Per Quantity

- Single
- Double
- Multiple

Sampling Plan Analyzer consists of a single executable “Sampling Plan Analyzer.exe”. No dynamic link libraries are utilized. The application is a 32-bit executable that will execute under Microsoft Windows versions 95 and up.

Previously the test cases contained in the file “Sampling Plan Analyzer 2.0 Interface Test Cases.doc”, dated 9/27/01, have been run to thoroughly test the user interface. A key element of these test cases is to ensure the program only accepts valid input from the user.

There are over 1,000 test cases that test the main window, menu bar, toolbar, and all other windows and dialog boxes.

While these test cases demonstrate the user interface functions correctly and displays results when requested, it does not demonstrate that the displayed plots, tables, etc. contain correct information. This validation is intended to close this gap and demonstrate the correctness of all displayed results. Correctness of the displayed results means that, not only are the equations calculated correctly, but that the hundreds of equations used are themselves correct.

To this end, every attempt was made to find examples in refereed journals, books and in standards that could be used to verify both the equations and the evaluation of those equations. The test cases are listed in Tables 1-16. For each test case these tables give an identifier, description of the test case, expected results and source.

One complication is that many of the values given in the standards are only approximations. For example, ANSI Z1.4 shows the same OC curve and percentiles for some plans regardless of whether defects or defectives are tallied. The values displayed are exact for defects and approximate for defectives. The test cases generated will indicate that the calculated value should be approximately equal to the standard's values when this is the case.

Due to the broad capabilities of Sampling Plan Analyzer, published examples could not be found to verify all calculations performed. To fill the gaps, additional test cases are labeled as follows and generated by the following means:

- **Constant:** A test cases labeled “Constant” means the equation for this calculation is a constant value. One example is the ASN(p) of a single sampling plan $n=13$, $a=0$. In this case the $ASN(p)=13$ for all p .
- **EXCEL:** A test case labeled “EXCEL” was generated by typing the equation into EXCEL and evaluating it. This strategy is only used for very simple equations easily verified as correct. An example is that for the single sampling plan $n=13$, $a=0$, $OC(p) = \text{Binomial}(a|n,p)$ where $\text{Binomial}(a|n,p)$ is a function contained in EXCEL.
- **Consistency:** A test case labeled “Consistency” uses some known relationship between two plans or cases to verify consistency. For example, any double sampling plan is also a 2-stage multiple sampling plan, so the plan can be entered both ways and the displayed results compared to verify they are identical.
- **Simulation:** In cases where the equations are complex and no published example can be found, simulations are used to simulate the behavior of the sampling plan and the results compared to the calculated values. Since the simulation results are approximate, such tests cases require the simulated values to be within 10% of the calculated values. This approach verifies correctness of equations. For example, this approach is used to verify correctness of values for ANSI Z1.4 switching rules

for which the equations are extremely complex and the equations commonly used involve certain approximations.

In Sampling Plan Analyzer, there is separate code for calculating $OC(p)$, $ASN(p)$ and $E\{\#stages\}(p)$ for each of the 13 types of sampling plans. However the code for calculating AQL, LTPD, percentiles, $AOQ(p)$ and $AOQL$ is common to all the types of sampling plans. Therefore the test cases concentrate on ensuring that $OC(p)$, $ASN(p)$ and $E\{\#stages\}(p)$ are correct for each type of sampling plan.

2.0 Test Procedure and Acceptance Criteria

- 2.1 Record the date and time of the file Change-Point Analyzer.exe used for this validation.
- 2.2 Record information on the computer used to perform the validation on the Test Results Summary Form.
- 2.3 Enter each of the sampling plans listed in Tables 1-13 into Sampling Plan Analyzer and verify the results generated are consistent with the values found in Tables 1-13. When the equal sign is used in describing the expected results of a test case, the test case passes if the value from the program is within 1 of the last digit of the value in the table. For example, suppose the expected result given in the table of test cases was 1.8. Then if any of the following values were generated by the program, the test case would pass: 1.7, 1.75, 1.8126, 1.85, and 1.9. The actual values calculated by Sampling Plan Analyzer should be recorded along with whether the test case passed.

The symbol \approx is used to indicate the value of the expected result in Tables 1-13 is an approximation. In this case, the value calculated by Sampling Plan Analyzer must be within 10% of the expected result to pass automatically. When values disagree by more than 10%, the discrepancy should be investigated using hand calculations, simulations, etc. Such cases pass if it can be demonstrated that the value given by Sampling Plan Analyzer is correct. The values calculated by Sampling Plan Analyzer should be recorded along with any justification for acceptance when a discrepancy of more than 10% is found. It is expected that several such discrepancies will be found because some test cases are based on values in standards, which sometimes use crude approximations.

- 2.4 Select sampling plans of each of the 13 types and for each of the combination of AQLs and LTPDs shown in Tables 14-16. For a test case to pass, the actual AQLs and LTPDs of the selected plans must meet the requirements specified in their selection.
- 2.5 The validation is considered to have successfully passed if all individual test cases pass.

3.0 References

ANSI Z1.4 (1993), Sampling Procedures and Tables For Inspection By Attributes, American Society for Quality Control, Milwaukee, Wisconsin.

ANSI Z1.9 (1993), Sampling Procedures and Tables For Inspection By Variables for Percent Nonconforming, American Society for Quality Control, Milwaukee, Wisconsin.

Burr, Irving W. (1957), "Average Sample Number Under Curtailed or Truncated Sampling," Industrial Quality Control, February 1957, pp. 5-7.

Guenther, William C. (1971), "The Average Sample Number for Truncated Double Sample Attribute Plans," Technometrics, Vol. 13, No. 4, pp. 811-816.

Hald, Anders and Moller, Uffe (1976), "The ASN Function for Curtailed Single Sampling by Attributes," Technometrics, Vol. 18, No. 3, pp. 307-312.

Schilling, Edward G. (1982), Acceptance Sampling in Quality Control, Marcel Dekker, New York, New York.

Shah, D. K. and Phatak, A. G. (1972), "A Simplified Form of the ASN for a Curtailed Sampling Plan," Technometrics, Vol. 14, No. 4, pp. 925-929.

Table 1: Test Cases for Defective Units – Single Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n=13, a=0 no curtailing all lot sizes	ANSI Z1.4, p. 39	AQL = 0.394 LTPD = 16.2	List Window OC, Summary, Percentiles, Table Tabs	1.1.A
	ANSI Z1.4, p. 39	P _{0.99} = 0.077 P _{0.50} = 5.19 P _{0.01} = 29.8	Percentiles Tab	1.1.B
	ANSI Z1.4, p. 23	AOQL = 2.8	List Window AOQ, Summary Tabs	1.1.C
	Constant	ASN = 13	ASN, Table Tabs	1.1.D
	Constant	E #Stages = 1	Cost, Table Tabs	1.1.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	1.1.F
n=2000, a=21 no curtailing all lot sizes	ANSI Z1.4, p. 61	AQL = 0.745 LTPD = 1.41	List Window OC, Summary, Percentiles, Table Tabs	1.2.A
	ANSI Z1.4, p. 61	P _{0.99} = 0.629 P _{0.50} = 1.08 P _{0.01} = 1.72	Percentiles Tab	1.2.B
	ANSI Z1.4, p. 23	AOQL = 0.73	List Window AOQ, Summary Tabs	1.2.C
	Constant	ASN = 2000	ASN, Table Tabs	1.2.D
	Constant	E #Stages = 1	Cost, Table Tabs	1.2.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	1.2.F
n=10, c=1, N=100	Schilling, p. 80	OC(5%) = 0.923 OC(10%) = 0.738 OC(20%) = 0.363 OC(30%) = 0.136	OC, Table Tabs	1.3
n=20, a=1 all lot sizes	Schilling, p. 123	OC(18%) = 0.102	OC, Table Tabs	1.4.A
	Schilling, p. 123	ASN(18%) = 10.44 curtail on rejection ASN(18%) = 10.42 full curtailing	ASN, Table Tabs	1.4.B
	Schilling, p. 123	AOQ(18%) = 1.8 AOQL = 4.2	List Window AOQ, Summary Tabs	1.4.C
n=80, a=4, Curtail on rejection	Shah and Phatak, p. 928	ASN(3%) = 78.43 ASN(4%) = 75.91 ASN(6%) = 67.63	ASN, Table Tabs	1.5
n=80, a=4, Full curtailing	Shah and Phatak, p. 928	ASN(3%) = 76.63 ASN(4%) = 74.68 ASN(6%) = 67.13	ASN, Table Tabs	1.6
n=80, a=4, N=200, Full curtailing	EXCEL	ASN(3%) = 77.78 ASN(4%) = 76.31 ASN(6%) = 67.96	ASN, Table Tabs	1.7

Table 2: Test Cases for Defective Units – Double Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n1=13, a1=0, r1=2, n2=13, a2=1 all lot sizes	Schilling, p.139	OC(18%) = 0.092	OC, Table Tabs	2.1.A
	Schilling, p.139	ASN(18%) = 15.8 no curtailing ASN(18%) = 14.1 curtailing on second stage	ASN, Table Tabs	2.1.B
	Schilling, p.139	AOQ(18%) = 1.7%	AOQ, Table Tabs	2.1.C
	Consistency Check	AQL and LTPD correspond to values in Table Tab when many lines	OC, Table Tabs	2.1.D
	Consistency Check	AOQL = max AOQ in Table Tab when many lines	List Window Summary Tab	2.1.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	2.1.F
	EXCEL	ENS(18%) = 1.216	Cost, Table Tabs	2.1.G
n1=50, a1=0, r1=3, n2=100, a2=2, no curtailing, all lot sizes	Burr, p. 6	ASN(0%) = 50 ASN(1.5%) = 99.1 ASN(4%) = 104.7	ASN, Table Tabs	2.2
n1=50, a1=0, r1=3, n2=100, a2=2, curtail on second stage rejection, all lot sizes	Burr, p. 6	ASN(0%) = 50 ASN(1.5%) = 86.1 ASN(4%) = 69.6	ASN, Table Tabs	2.3
n1=11, a1=0, r1=2, n2=8, a2=1 N=25	Guenther, p. 814	ASN(X=4 or 16%) = 13.53 no curtailing ASN(X=4 or 16%) = 9.89 full curtailing	ASN, Table Tabs	2.4.A
	EXCEL	OC(X=4 or 16%) = 0.0965	OC, Table Tabs	2.4.B
	EXCEL	ENS(X=4 or 16%) = 1.3165	Cost, Table Tabs	2.4.C
n1=50, a1=1, r1=4, n2=100, a2=3 all lot sizes	Guenther, p. 814	ASN(5%) = 98.10 no curtailing ASN(5%) = 61.44 curtailing on rejection both stages	ASN, Table Tabs	2.5

Table 3: Test Cases for Defective Units – Multiple Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
S=2, n1=13, a1=0, r1=2, n2=13, a2=1 all lot sizes	Schilling, p.139	OC(18%) = 0.092	OC, Table Tabs	3.1.A
	Schilling, p.139	ASN(18%) = 15.8 no curtailing ASN(18%) = 14.1 curtailing on second stage	ASN, Table Tabs	3.1.B
	Schilling, p.139	AOQ(18%) = 1.7%	AOQ, Table Tabs	3.1.C
	Consistency Check	AQL and LTPD correspond to values in Table Tab when many lines	OC, Table Tabs	3.1.D
	Consistency Check	AOQL = max AOQ in Table Tab when many lines	List Window Summary Tab	3.1.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	3.1.F
	EXCEL	ENS(18%) = 1.216	Cost, Table Tabs	3.1.G
n1=50, a1=0, r1=3, n2=100, a2=2, no curtailing, all lot sizes	Burr, p. 6	ASN(0%) = 50 ASN(1.5%) = 99.1 ASN(4%) = 104.7	ASN, Table Tabs	3.2
n1=50, a1=0, r1=3, n2=100, a2=2, curtail on second stage rejection, all lot sizes	Burr, p. 6	ASN(0%) = 50 ASN(1.5%) = 86.1 ASN(4%) = 69.6	ASN, Table Tabs	3.3
n1=11, a1=0, r1=2, n2=8, a2=1 N=25	Guenther, p. 814	ASN(X=4 or 16%) = 13.53 no curtailing ASN(X=4 or 16%) = 9.89 full curtailing	ASN, Table Tabs	3.4.A
	EXCEL	OC(X=4 or 16%) = 0.0965	OC, Table Tabs	3.4.B
	EXCEL	ENS(X=4 or 16%) = 1.3165	Cost, Table Tabs	3.4.C
n1=50, a1=1, r1=4, n2=100, a2=3 all lot sizes	Guenther, p. 814	ASN(5%) = 98.10 no curtailing ASN(5%) = 61.44 curtailing on rejection both stages	ASN, Table Tabs	3.5

Table 3: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
S=3, n1=10, a1=#, r1=2, n2=10, a2=0, r2 = 2, n3=10, a3=1, r3=2 all lot sizes	Schilling, p.150	OC(1%) = 0.967	OC, Table Tabs	3.6.A
	EXCEL	ASN(1%) = 21.61 no curtailing	ASN, Table Tabs	3.6.B
	Schilling, p.143	AOQ(1%) = 0.97%	AOQ, Table Tabs	3.6.C
	Consistency Check	AQL and LTPD correspond to values in Table Tab when many lines	OC, Table Tabs	3.6.D
	Consistency Check	AOQL = max AOQ in Table Tab when many lines	List Window Summary Tab	3.6.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	3.6.F

Table 4: Test Cases for Defective Units – ANSI Z1.4 Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.1.A
	ANSI Z1.4, p. 11	n=1250, a=0	List Window	4.1.B
	ANSI Z1.4, p. 59	AQL ≈ 0.00410 LTPD ≈ 0.184	List Window OC, Summary, Percentiles, Table Tabs	4.1.C
	ANSI Z1.4, p. 59	$p_{0.99} \approx 0.000804$ $p_{0.50} \approx 0.0555$ $p_{0.01} \approx 0.368$	Percentiles Tab	4.1.D
	ANSI Z1.4, p. 23	AOQL ≈ 0.029	List Window AOQ, Summary Tabs	4.1.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.1.F
AQL = 0.01% S-1 2-8 lot size Double Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.2.A
	ANSI Z1.4, p. 14	Use corresponding single sampling plan n=1250, a=0	Z1.4 Dialog Box	4.2.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.2.C
AQL = 0.01% S-1 2-8 lot size Multiple Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.3.A
	ANSI Z1.4, p. 18	Use corresponding single sampling plan n=1250, a=0	Z1.4 Dialog Box	4.3.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.3.C

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.4.A
	ANSI Z1.4, p. 12	n=2000, a=0	List Window	4.4.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.4.C
AQL = 0.01% S-1 2-8 lot size Double Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.5.A
	ANSI Z1.4, p. 15	Use corresponding single sampling plan n=2000, a=0	List Window	4.5.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.5.C
AQL = 0.01% S-1 2-8 lot size Multiple Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.6.A
	ANSI Z1.4, p. 20	Use corresponding single sampling plan n=2000, a=0	List Window	4.6.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.6.C

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.7.A
	ANSI Z1.4, p. 13	n=500, a=0	List Window	4.7.B
	ANSI Z1.4, p. 55	AQL \approx 0.0103 LTPD \approx 0.461	List Window OC, Summary, Percentiles, Table Tabs	4.7.C
	ANSI Z1.4, p. 55	$p_{0.99} \approx 0.00201$ $p_{0.50} \approx 0.139$ $p_{0.01} \approx 0.921$	Percentiles Tab	4.7.D
	ANSI Z1.4, p. 23	AOQL \approx 0.074	List Window AOQ, Summary Tabs	4.7.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.7.F
AQL = 0.01% S-1 2-8 lot size Double Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.8.A
	ANSI Z1.4, p. 16	Use corresponding single sampling plan n=500, a=0	Z1.4 Dialog Box	4.8.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.8.C
AQL = 0.01% S-1 2-8 lot size Multiple Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.9.A
	ANSI Z1.4, p. 22	Use corresponding single sampling plan n=500, a=0	Z1.4 Dialog Box	4.9.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.9.C

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Full Switching	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.10.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 16 batches free of defects to switch to reduced	Z1.4 Dialog Box	4.10.B
	ANSI Z1.4, p. 85	AQL \approx 0.00573 LTPD \approx 0.115	List Window OC, Summary, Percentiles, Table Tabs	4.10.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx$ 0.00167 $p_{0.50} \approx$ 0.0358 $p_{0.01} \approx$ 0.231	Percentiles Tab	4.10.D
	ANSI Z1.4, p. 64	AOQL \approx 0.019	List Window AOQ, Summary Tabs	4.10.E
	ANSI Z1.4, p. 70	ASN(0.00167) \approx 596 ASN(0.00573) \approx 901 ASN(0.0358) \approx 1940 ASN(0.115) \approx 2000 ASN(0.231) \approx 2000	ASN, Table Tabs	4.10.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.10.G
	Constant	Varying Protection	List Window Summary Tab	4.10.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	4.10.I
	Consistency	Max Pa(LTPD) = OC _{Reduced} (LTPD)	Summary Tab	4.10.J
	Constant	Rate AQL = 0%	Summary Tab	4.10.K
	EXCEL Calc.	Rate LTPD \approx 30.8%	Summary Tab	4.10.L

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single No limit numbers	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.11.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 10 batches free of defects to switch to reduced	Z1.4 Dialog Box	4.11.B
	ANSI Z1.4, p. 85	AQL \approx 0.00573 LTPD \approx 0.115	List Window OC, Summary, Percentiles, Table Tabs	4.11.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.00167$ $p_{0.50} \approx 0.0358$ $p_{0.01} \approx 0.231$	Percentiles Tab	4.11.D
	ANSI Z1.4, p. 64	AOQL \approx 0.019	List Window AOQ, Summary Tabs	4.11.E
	Simulation	ASN(0.00167) \approx 564.8 OC(0.00167) \approx 0.9906 ASN(0.00573) \approx 761.9 OC(0.00573) \approx 0.9575 ASN(0.0358) \approx 1936 OC(0.0358) \approx 0.5017 ASN(0.115) \approx 2000 OC(0.115) \approx 0.1003	OC, ASN, Table Tabs	4.11.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.11.G
	Constant	Varying Protection	List Window Summary Tab	4.11.H
	Consistency	Min Pa(AQL) = $OC_{Tightened}(AQL)$	Summary Tab	4.11.I
	Consistency	Max Pa(LTPD) = $OC_{Reduced}(LTPD)$	Summary Tab	4.11.J
	Constant	Rate AQL = 0%	Summary Tab	4.11.K
	EXCEL Calc.	Rate LTPD \approx 30.8%	Summary Tab	4.11.L

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single No reduced inspection	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	4.12.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0	Z1.4 Dialog Box	4.12.B
	ANSI Z1.4, p. 85	AQL \approx 0.00573 LTPD \approx 0.115	List Window OC, Summary, Percentiles, Table Tabs	4.12.C
	ANSI Z1.4, p. 85	$P_{0.99} \approx 0.00167$ $P_{0.50} \approx 0.0358$ $P_{0.01} \approx 0.231$	Percentiles Tab	4.12.D
	ANSI Z1.4, p. 64	AOQL \approx 0.019	List Window AOQ, Summary Tabs	4.12.E
	Simulation	ASN(0.00167) \approx 1256 OC(0.00167) \approx 0.9792 ASN(0.00573) \approx 1317 OC(0.00573) \approx 0.9274 ASN(0.0358) \approx 1938 OC(0.0358) \approx 0.5011 ASN(0.115) \approx 2000 OC(0.115) \approx 0.1003	OC, ASN, Table Tabs	4.12.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.12.G
	Constant	Varying Protection	List Window and Summary Tab	4.12.H
	Consistency Check	Min Pa(AQL) = OC _{Tightened} (0.00573)	Summary Tab	4.12.I
	Consistency Check	Max Pa(LTPD) = OC _{Normal} (0.115)	Summary Tab	4.12.J
	Constant	Rate AQL = 0%	Summary Tab	4.12.K
	Constant	Rate LTPD = 0%	Summary Tab	4.12.L

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.13.A
	ANSI Z1.4, p. 11	n=200, a=5	List Window	4.13.B
	ANSI Z1.4, p. 51	AQL \approx 1.31 LTPD \approx 4.64	List Window OC, Summary, Percentiles, Table Tabs	4.13.C
	ANSI Z1.4, p. 51	$p_{0.99} \approx 0.893$ $p_{0.50} \approx 2.84$ $p_{0.01} \approx 6.55$	Percentiles Tab	4.13.D
	ANSI Z1.4, p. 23	AOQL \approx 1.6	List Window AOQ, Summary Tabs	4.13.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.13.F
AQL = 1.0% L-II 10,000 lot size Double Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.14.A
	ANSI Z1.4, p. 14	n1=125, a1=2, r1=5, n2=125, a2=6	List Window	4.14.B
	ANSI Z1.4, p. 51	AQL \approx 1.31 LTPD \approx 4.64	List Window OC, Summary, Percentiles, Table Tabs	4.14.C
	ANSI Z1.4, p. 51	$p_{0.99} \approx 0.893$ $p_{0.50} \approx 2.84$ $p_{0.01} \approx 6.55$	Percentiles Tab	4.14.D
	ANSI Z1.4, p. 23	AOQL \approx 1.6	List Window AOQ, Summary Tabs	4.14.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, AOQL, ASN and E #stages agree with those values for double sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.14.F

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Multiple Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.15.A
	ANSI Z1.4, p. 18	n1=50, a1=#, r1=4, n2=50, a2=1, r2=5, n3=50, a3=2, r3=6, n4=50, a4=3, r4=7, n5=50, a5=5, r5=8, n6=50, a6=7, r6=9, n7=50, a7=9, r7=10	List Window	4.15.B
	ANSI Z1.4, p. 51	AQL \approx 1.31 LTPD \approx 4.64	List Window OC, Summary, Percentiles, Table Tabs	4.15.C
	ANSI Z1.4, p. 51	$p_{0.99} \approx 0.893$ $p_{0.50} \approx 2.84$ $p_{0.01} \approx 6.55$	Percentiles Tab	4.15.D
	ANSI Z1.4, p. 23	AOQL \approx 1.6	List Window AOQ, Summary Tabs	4.15.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, AOQL, ASN and E #stages agree with those values for multiple sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.15.F

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.16.A
	ANSI Z1.4, p. 12	n=200, a=3	List Window	4.16.B
	ANSI Z1.4, p. 51	AQL \approx 0.683 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.16.C
	ANSI Z1.4, p. 51	P _{0.99} \approx 0.412 P _{0.50} \approx 1.84 P _{0.01} \approx 5.02	Percentiles Tab	4.16.D
	ANSI Z1.4, p. 24	AOQL \approx 0.97	List Window AOQ, Summary Tabs	4.16.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.16.F
AQL = 1.0% L-II 10,000 lot size Double Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.17.A
	ANSI Z1.4, p. 15	n1=125, a1=1, r1=4, n2=125, a2=4	List Window	4.17.B
	ANSI Z1.4, p. 51	AQL \approx 0.683 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.17.C
	ANSI Z1.4, p. 51	P _{0.99} \approx 0.412 P _{0.50} \approx 1.84 P _{0.01} \approx 5.02	Percentiles Tab	4.17.D
	ANSI Z1.4, p. 24	AOQL \approx 0.97	List Window AOQ, Summary Tabs	4.17.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , AOQL, ASN and E #stages agree with those values for double sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.17.F

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Multiple Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.18.A
	ANSI Z1.4, p. 20	n1=50, a1=#, r1=3, n2=50, a2=0, r2=3, n3=50, a3=1, r3=4, n4=50, a4=2, r4=5, n5=50, a5=3, r5=6, n6=50, a6=4, r6=6, n7=50, a7=6, r7=7	List Window	4.18.B
	ANSI Z1.4, p. 51	AQL \approx 0.683 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.18.C
	ANSI Z1.4, p. 51	$P_{0.99} \approx 0.412$ $P_{0.50} \approx 1.84$ $P_{0.01} \approx 5.02$	Percentiles Tab	4.18.D
	ANSI Z1.4, p. 24	AOQL \approx 0.97	List Window AOQ, Summary Tabs	4.18.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, AOQL, ASN and E #stages agree with those values for multiple sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	4.18.F

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.19.A
	ANSI Z1.4, p. 13	n=80, a=4	List Window	4.19.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with single sampling plan	List Window OC, Summary, Percentiles, Table Tabs	4.19.C
AQL = 1.0% L-II 10,000 lot size Double Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.20.A
	ANSI Z1.4, p. 15	n1=50, a1=0, r1=4, n2=50, a2=5	List Window	4.20.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with double sampling plan	List Window OC, Summary, Percentiles, Table Tabs	4.20.C
AQL = 1.0% L-II 10,000 lot size Multiple Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.21.A
	ANSI Z1.4, p. 20	n1=20, a1=#, r1=3, n2=20, a2=0, r2=4, n3=20, a3=0, r3=5, n4=20, a4=1, r4=6, n5=20, a5=2, r5=7, n6=20, a6=3, r6=7, n7=20, a7=7, r7=8	List Window	4.21.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with multiple sampling plan	List Window OC, Summary, Percentiles, Table Tabs	4.21.C

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Full Switching	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.22.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, switch to reduced if 10 batches accepted with no more than 14 defectives.	Z1.4 Dialog Box	4.22.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.22.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.941$ $p_{0.50} \approx 1.95$ $p_{0.01} \approx 5.02$	Percentiles Tab	4.22.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	4.22.E
	Simulation	ASN(0.941) \approx 146.3 OC(0.941) \approx 0.9926 ASN(1.23) \approx 192.8 OC(1.23) \approx 0.9538 ASN(1.95) \approx 200.0 OC(1.95) \approx 0.4961 ASN(3.34) \approx 200 OC(3.34) \approx 0.0962	OC, ASN, Table Tabs	4.22.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.22.G
	Constant	Varying Protection	List Window Summary Tab	4.22.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	4.22.I
	Consistency	Max Pa(LTPD) = OC _{Reduced} (LTPD)	Summary Tab	4.22.J
	Constant	Rate AQL = 0%	Summary Tab	4.22.K
	EXCEL Calc.	Rate LTPD \approx 34.6%	Summary Tab	4.22.L

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single No limit numbers	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.23.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, switch to reduced if 10 batches accepted.	Z1.4 Dialog Box	4.23.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.23.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.941$ $p_{0.50} \approx 1.95$ $p_{0.01} \approx 5.02$	Percentiles Tab	4.23.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	4.23.E
	Simulation	ASN(0.941) \approx 116.1 OC(0.941) \approx 0.9955 ASN(1.23) \approx 140.2 OC(1.23) \approx 0.9740 ASN(1.95) \approx 198.2 OC(1.95) \approx 0.5026 ASN(3.34) \approx 200 OC(3.34) \approx 0.0962	OC, ASN, Table Tabs	4.23.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.23.G
	Constant	Varying Protection	List Window Summary Tab	4.23.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	4.23.I
	Consistency	Max Pa(LTPD) = OC _{Reduced} (LTPD)	Summary Tab	4.23.J
	Constant	Rate AQL = 0%	Summary Tab	4.23.K
	EXCEL Calc.	Rate LTPD \approx 34.6%	Summary Tab	4.23.L

Table 4: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single No reduced inspection	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	4.24.A
	ANSI Z1.4, pp. 11-12	Normal: n=200, a=5, Tightened: n=200, a=3,	Z1.4 Dialog Box	4.24.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	4.24.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.941$ $p_{0.50} \approx 1.95$ $p_{0.01} \approx 5.02$	Percentiles Tab	4.24.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	4.24.E
	Simulation	ASN(0.941) = 200 OC(0.941) \approx 0.9868 ASN(1.23) = 200 OC(1.23) \approx 0.9495 ASN(1.95) = 200 OC(1.95) \approx 0.4971 ASN(3.34) = 200 OC(3.34) \approx 0.100056	OC, ASN, Table Tabs	4.24.F
	Constant	E #Stages = 1	Cost, Table Tabs	4.24.G
	Constant	Varying Protection	List Window Summary Tab	4.24.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	4.24.I
	Consistency	Max Pa(LTPD) = OC _{normal} (LTPD)	Summary Tab	4.24.J
	Constant	Rate AQL = 0%	Summary Tab	4.24.K
	EXCEL Calc.	Rate LTPD = 0%	Summary Tab	4.24.L

Table 5: Test Cases for Defective Units – Variables Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n=15, k=2.42 SD Unknown 1 Spec k-method	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.1.A
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	5.1.B
	Constant	Protection constant	List Window and Summary Tab	5.1.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.1.D
n=15, M=0.311 SD Unknown 1 Spec M-methodl	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.2.A
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	5.2.B
	Constant	Protection constant	List Window and Summary Tab	5.2.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.2.D
n=15, k=2.42 SD Unknown 2 Spec k-Method	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.3.A
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	5.3.B
	Constant	Protection Varies	List Window and Summary Tab	5.3.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.3.D
n=15, M=0.311 SD Unknown 2 Spec M-Method	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.4.A
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	5.4.B
	Constant	Protection Varies	List Window and Summary Tab	5.4.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.4.D

Table 5: (Cont.)

Sampling Plan	Source	Expected Result	Location	ID
n=4, k=2.39 SD Known 1 Spec k-Method	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.5.A
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	5.5.B
	Constant	Protection constant	List Window and Summary Tab	5.5.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.5.D
n=4, M=0.290 SD Known 1 Spec M-Method	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.6.A
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	5.6.B
	Constant	Protection constant	List Window and Summary Tab	5.6.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.6.D
n=4, k=2.39 SD Known 2 Specs k-Method $C_p = 2$	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.7.A
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	5.7.B
	Constant	Protection constant	List Window and Summary Tab	5.7.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.7.D
n=4, M=0.290 SD Known 2 Specs M-Method $C_p = 2$	ANSI Z1.9, p. 99	AQL \approx 0.06 $p_{0.50} \approx$ 0.90 LTPD \approx 4.31	List Window OC, Summary, Percentiles, Table Tabs	5.8.A
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	5.8.B
	Constant	Protection constant	List Window and Summary Tab	5.8.C
	Constant	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC (LTPD) = 0.10, Rate LTPD = 100%	Summary Tab	5.8.D

Table 6: Test Cases for Defective Units – ANSI Z1.9 Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 1 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.1.A
	ANSI Z1.9, p. 35	n=15, k=2.42	Z1.9 Dialog Box	6.1.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.1.C
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.1.D
	Constant	Protection constant	List Window and Summary Tab	6.1.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.1.F
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 1 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.2.A
	ANSI Z1.9, p. 35	n=15, k=2.53	Z1.9 Dialog Box	6.2.B
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.2.C
	Constant	Protection constant	List Window and Summary Tab	6.2.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.2.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 1 Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.3.A
	ANSI Z1.9, p. 36	n=7, k=2.13	Z1.9 Dialog Box	6.3.B
	Constant	ASN = 7, ENS = 1	ASN, Cost and Table Tabs	6.3.C
	Constant	Protection constant	List Window and Summary Tab	6.3.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.3.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 1 Full Switching	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.4.A
	ANSI Z1.9, p. 35-36	N: n=15, k=2.42, T: n=15, k=2.53 R: n=7, k=2.13	Z1.9 Dialog Box	6.4.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.4.C
	Constant	ENS = 1	Cost and Table Tabs	6.4.D
	Constant	Protection Varies	List Window and Summary Tab	6.4.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 1 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.5.A
	ANSI Z1.9, p. 36	N: n=15, k=2.42, T: n=15, k=2.53	Z1.9 Dialog Box	6.5.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.5.C
	Constant	ENS = 1	Cost and Table Tabs	6.5.D
	Constant	Protection Varies	List Window and Summary Tab	6.5.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.6.A
	ANSI Z1.9, p. 41	n=15, M=0.311	Z1.9 Dialog Box	6.6.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.6.C
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.6.D
	Constant	Protection constant	List Window and Summary Tab	6.6.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.6.F
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.7.A
	ANSI Z1.9, p. 41	n=15, M=0.186	Z1.9 Dialog Box	6.7.B
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.7.C
	Constant	Protection constant	List Window and Summary Tab	6.7.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.7.E
	AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 2 Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 42		n=7, M=0.087	Z1.9 Dialog Box	6.8.B
Constant		ASN = 7, ENS = 1	ASN, Cost and Table Tabs	6.8.C
Constant		Protection constant	List Window and Summary Tab	6.8.D
Consistency		AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.8.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 2 Full Switching		ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
	ANSI Z1.9, p. 41- 42	N: n=15, M=0.311, T: n=15, M=0.186, R: n=7, M=0.087	Z1.9 Dialog Box	6.9.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.9.C
	Constant	ENS = 1	Cost and Table Tabs	6.9.D
	Constant	Protection Varies	List Window and Summary Tab	6.9.E
	AQL = 0.1% S-3 35,000 lot size SD Unknown 1 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 41		N: n=15, M=0.311, T: n=15, M=0.186	Z1.9 Dialog Box	6.10.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.10.C
Constant		ENS = 1	Cost and Table Tabs	6.10.D
Constant		Protection Varies	List Window and Summary Tab	6.10.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Unknown 2 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.11.A
	ANSI Z1.9, p. 41	n=15, M=0.311	Z1.9 Dialog Box	6.11.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.11.C
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.11.D
	Constant	Protection Varies	List Window and Summary Tab	6.11.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.11.F
AQL = 0.1% S-3 35,000 lot size SD Unknown 2 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.12.A
	ANSI Z1.9, p. 41	n=15, M=0.186	Z1.9 Dialog Box	6.12.B
	Constant	ASN = 15, ENS = 1	ASN, Cost and Table Tabs	6.12.C
	Constant	Protection Varies	List Window and Summary Tab	6.12.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.12.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 2 Spec Form 2 Reduce	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.13.A
	ANSI Z1.9, p. 42	n=7, M=0.087	Z1.9 Dialog Box	6.13.B
	Constant	ASN = 7, ENS = 1	ASN, Cost and Table Tabs	6.13.C
	Constant	Protection Varies	List Window and Summary Tab	6.13.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.13.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 2 Spec Form 2 Full Switching	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.14.A
	ANSI Z1.9, p. 41- 42	N: n=15, M=0.311, T: n=15, M=0.186, R: n=7, M=0.087	Z1.9 Dialog Box	6.14.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.14.C
	Constant	ENS = 1	Cost and Table Tabs	6.14.D
	Constant	Protection Varies	List Window and Summary Tab	6.14.E
AQL = 0.1% S-3 35,000 lot size SD Unknown 2 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.15.A
	ANSI Z1.9, p. 41	N: n=15, M=0.311, T: n=15, M=0.186	Z1.9 Dialog Box	6.15.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.15.C
	Constant	ENS = 1	Cost and Table Tabs	6.15.D
	Constant	Protection Varies	List Window and Summary Tab	6.15.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 1 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.16.A
	ANSI Z1.9, p. 81	n=4, k=2.39	Z1.9 Dialog Box	6.16.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.16.C
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	6.16.D
	Constant	Protection constant	List Window and Summary Tab	6.16.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.16.F
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 1 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.17.A
	ANSI Z1.9, p. 81	n=3, k=2.49	Z1.9 Dialog Box	6.17.B
	Constant	ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.17.C
	Constant	Protection constant	List Window and Summary Tab	6.17.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.17.E
	AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 1 Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 83		n=3, k=2.19	Z1.9 Dialog Box	6.18.B
Constant		ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.18.C
Constant		Protection constant	List Window and Summary Tab	6.18.D
Consistency		AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.18.E
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 1 Full Switching		ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
	ANSI Z1.9, p. 81, 83	N: n=4, k=2.39, T: n=3, k=2.49, R: n=3, k=2.19	Z1.9 Dialog Box	6.19.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.19.C
	Constant	ENS = 1	Cost and Table Tabs	6.19.D
	Constant	Protection Varies	List Window and Summary Tab	6.19.E
	AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 1 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 81		N: n=4, k=2.39, T: n=3, k=2.49	Z1.9 Dialog Box	6.20.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.20.C
Constant		ENS = 1	Cost and Table Tabs	6.20.D
Constant		Protection Varies	List Window and Summary Tab	6.20.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.21.A
	ANSI Z1.9, p. 90	n=4, M=0.290, v=1.155	Z1.9 Dialog Box	6.21.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.21.C
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	6.21.D
	Constant	Protection constant	List Window and Summary Tab	6.21.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.21.F
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.22.A
	ANSI Z1.9, p. 90	n=3, M=0.114, v=1.225	Z1.9 Dialog Box	6.22.B
	Constant	ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.22.C
	Constant	Protection constant	List Window and Summary Tab	6.22.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.22.E
	AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 2 Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 92		n=3, M=0.369, v=1.225	Z1.9 Dialog Box	6.23.B
Constant		ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.23.C
Constant		Protection constant	List Window and Summary Tab	6.23.D
Consistency		AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.23.E
AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 2 Full Switching		ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
	ANSI Z1.9, p. 90, 92	N: n=4, M=0.290, v=1.155 T: n=3, M=0.114, v=1.225 R: n=3, M=0.369, v=1.225	Z1.9 Dialog Box	6.24.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.24.C
	Constant	ENS = 1	Cost and Table Tabs	6.24.D
	Constant	Protection Varies	List Window and Summary Tab	6.24.E
	AQL = 0.1% S-3 35,000 lot size SD Known 1 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box
ANSI Z1.9, p. 90		N: n=4, M=0.290, v=1.155 T: n=3, M=0.114, v=1.225	Z1.9 Dialog Box	6.25.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.25.C
Constant		ENS = 1	Cost and Table Tabs	6.25.D
Constant		Protection Varies	List Window and Summary Tab	6.25.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.1% S-3 35,000 lot size SD Known 2 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.26.A
	ANSI Z1.9, p. 90, 95	n=4, M=0.290, v=1.155, MPSD=0.147	Z1.9 Dialog Box	6.26.B
	ANSI Z1.9, p. 99	AQL ≈ 0.06 p _{0.50} ≈ 0.90 LTPD ≈ 4.31	List Window OC, Summary, Percentiles, Table Tabs	6.26.C
	Constant	ASN = 4, ENS = 1	ASN, Cost and Table Tabs	6.26.D
	Constant	Protection Varies	List Window and Summary Tab	6.26.E
	Consistency	OC curve is identical to 1 spec form 2 plan	OC Tab	6.26.F
AQL = 0.1% S-3 35,000 lot size SD Known 2 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.27.A
	ANSI Z1.9, p. 90	n=3, M=0.114, v=1.225, MPSD=0.147	Z1.9 Dialog Box	6.27.B
	Constant	ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.27.C
	Constant	Protection Varies	List Window and Summary Tab	6.27.D
	Consistency	OC curve is identical to 1 spec form 2 plan	OC Tab	6.27.E
AQL = 0.1% S-3 35,000 lot size SD Known 2 Spec Form 2 Reduce	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.28.A
	ANSI Z1.9, p. 92	n=3, M=0.369, v=1.225, MPSD=0.147	Z1.9 Dialog Box	6.28.B
	Constant	ASN = 3, ENS = 1	ASN, Cost and Table Tabs	6.28.C
	Constant	Protection Varies	List Window and Summary Tab	6.28.D
	Consistency	OC curve is identical to 1 spec form 2 plan	OC Tab	6.28.E
AQL = 0.1% S-3 35,000 lot size SD Known 2 Spec Form 2 Full Switching	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.29.A
	ANSI Z1.9, p. 90, 92	N: n=4, M=0.290, v=1.155 T: n=3, M=0.114, v=1.225 R: n=3, M=0.369, v=1.225 MPSD=0.147	Z1.9 Dialog Box	6.29.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.29.C
	Constant	ENS = 1	Cost and Table Tabs	6.29.D
	Constant	Protection Varies	List Window and Summary Tab	6.29.E
AQL = 0.1% S-3 35,000 lot size SD Known 2 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = G	Z1.9 Dialog Box	6.30.A
	ANSI Z1.9, p. 90	N: n=4, M=0.290, v=1.155 T: n=3, M=0.114, v=1.225 MPSD=0.147	Z1.9 Dialog Box	6.30.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.30.C
	Constant	ENS = 1	Cost and Table Tabs	6.30.D
	Constant	Protection Varies	List Window and Summary Tab	6.30.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 1 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.31.A
	ANSI Z1.9, p. 35	n=200, k=1.08	Z1.9 Dialog Box	6.31.B
	ANSI Z1.9, p. 99	AQL ≈ 11.22 p _{0.50} ≈ 14.27 LTPD ≈ 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.31.C
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.31.D
	Constant	Protection constant	List Window and Summary Tab	6.31.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.31.F
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 1 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.32.A
	ANSI Z1.9, p. 35	n=200, k=1.29	Z1.9 Dialog Box	6.32.B
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.32.C
	Constant	Protection constant	List Window and Summary Tab	6.32.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.32.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 1 Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.33.A
	ANSI Z1.9, p. 36	n=75, k=0.806	Z1.9 Dialog Box	6.33.B
	Constant	ASN = 75, ENS = 1	ASN, Cost and Table Tabs	6.33.C
	Constant	Protection constant	List Window and Summary Tab	6.33.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.33.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 1 Full Switching	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.34.A
	ANSI Z1.9, p. 35-36	N: n=200, k=1.08, T: n=200, k=1.29, R: n=75, k=0.806	Z1.9 Dialog Box	6.34.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.34.C
	Constant	ENS = 1	Cost and Table Tabs	6.34.D
	Constant	Protection Varies	List Window and Summary Tab	6.34.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 1 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.35.A
	ANSI Z1.9, p. 36	N: n=200, k=1.08, T: n=200, k=1.29	Z1.9 Dialog Box	6.35.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.35.C
	Constant	ENS = 1	Cost and Table Tabs	6.35.D
	Constant	Protection Varies	List Window and Summary Tab	6.35.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.36.A
	ANSI Z1.9, p. 41	n=200, M=14.11	Z1.9 Dialog Box	6.36.B
	ANSI Z1.9, p. 99	AQL \approx 11.22 $p_{0.50} \approx$ 14.27 LTPD \approx 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.36.C
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.36.D
	Constant	Protection constant	List Window and Summary Tab	6.36.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.36.F
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.37.A
	ANSI Z1.9, p. 41	n=200, M=9.80	Z1.9 Dialog Box	6.37.B
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.37.C
	Constant	Protection constant	List Window and Summary Tab	6.37.D
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.37.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 2 Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.38.A
	ANSI Z1.9, p. 42	n=75, M=21.05	Z1.9 Dialog Box	6.38.B
	Constant	ASN = 75, ENS = 1	ASN, Cost and Table Tabs	6.38.C
	Constant	Protection constant	List Window and Summary Tab	6.38.D
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.38.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 2 Full Switching	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.39.A
	ANSI Z1.9, p. 41-42	N: n=200, M=14.11, T: n=200, M=9.80, R: n=75, M=21.05	Z1.9 Dialog Box	6.39.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.39.C
	Constant	ENS = 1	Cost and Table Tabs	6.39.D
	Constant	Protection Varies	List Window and Summary Tab	6.39.E
AQL = 10% L-3 150000 lot size SD Unknown 1 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.40.A
	ANSI Z1.9, p. 41	N: n=200, M=11.22, T: n=200, M=9.80	Z1.9 Dialog Box	6.40.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.40.C
	Constant	ENS = 1	Cost and Table Tabs	6.40.D
	Constant	Protection Varies	List Window and Summary Tab	6.40.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Unknown 2 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.41.A
	ANSI Z1.9, p. 41	n=200, M=14.11	Z1.9 Dialog Box	6.41.B
	ANSI Z1.9, p. 99	AQL ≈ 11.22 p _{0.50} ≈ 14.27 LTPD ≈ 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.41.C
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.41.D
	Constant	Protection Varies	List Window and Summary Tab	6.41.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.41.F
AQL = 10% L-3 150000 lot size SD Unknown 2 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.42.A
	ANSI Z1.9, p. 41	n=200, M=9.80	Z1.9 Dialog Box	6.42.B
	Constant	ASN = 200, ENS = 1	ASN, Cost and Table Tabs	6.42.C
	Constant	Protection Varies	List Window and Summary Tab	6.42.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.42.E
	AQL = 10% L-3 150000 lot size SD Unknown 2 Spec Form 2 Reduce	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 42		n=75, M=21.05	Z1.9 Dialog Box	6.43.B
Constant		ASN = 75, ENS = 1	ASN, Cost and Table Tabs	6.43.C
Constant		Protection Varies	List Window and Summary Tab	6.43.D
Consistency		AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.43.E
AQL = 10% L-3 150000 lot size SD Unknown 2 Spec Form 2 Full Switching		ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
	ANSI Z1.9, p. 41-42	N: n=200, M=14.11, T: n=200, M=9.80, R: n=75, M=21.05	Z1.9 Dialog Box	6.44.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.44.C
	Constant	ENS = 1	Cost and Table Tabs	6.44.D
	Constant	Protection Varies	List Window and Summary Tab	6.44.E
	AQL = 10% L-3 150000 lot size SD Unknown 2 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 41		N: n=200, M=14.11, T: n=200, M=9.80	Z1.9 Dialog Box	6.45.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.45.C
Constant		ENS = 1	Cost and Table Tabs	6.45.D
Constant		Protection Varies	List Window and Summary Tab	6.45.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 1 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.46.A
	ANSI Z1.9, p. 82	n=127, k=1.07	Z1.9 Dialog Box	6.46.B
	ANSI Z1.9, p. 99	AQL \approx 11.22 $p_{0.50} \approx$ 14.27 LTPD \approx 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.46.C
	Constant	ASN = 127, ENS = 1	ASN, Cost and Table Tabs	6.46.D
	Constant	Protection constant	List Window and Summary Tab	6.46.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.46.F
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 1 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.47.A
	ANSI Z1.9, p. 82	n=109, k=1.29	Z1.9 Dialog Box	6.47.B
	Constant	ASN = 109, ENS = 1	ASN, Cost and Table Tabs	6.47.C
	Constant	Protection constant	List Window and Summary Tab	6.47.D
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.47.E
	AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 1 Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 84		n=56, k=0.803	Z1.9 Dialog Box	6.48.B
Constant		ASN = 56, ENS = 1	ASN, Cost and Table Tabs	6.48.C
Constant		Protection constant	List Window and Summary Tab	6.48.D
Consistency		AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.48.E
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 1 Full Switching		ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
	ANSI Z1.9, p. 82, 84	N: n=127, k=1.07, T: n=109, k=1.29, R: n=56, k=0.803	Z1.9 Dialog Box	6.49.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.49.C
	Constant	ENS = 1	Cost and Table Tabs	6.49.D
	Constant	Protection Varies	List Window and Summary Tab	6.49.E
	AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 1 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 82		N: n=127, k=1.07, T: n=109, k=1.29	Z1.9 Dialog Box	6.50.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.50.C
Constant		ENS = 1	Cost and Table Tabs	6.50.D
Constant		Protection Varies	List Window and Summary Tab	6.50.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.51.A
	ANSI Z1.9, p. 91	n=127, M=14.02, v=1.004	Z1.9 Dialog Box	6.51.B
	ANSI Z1.9, p. 99	AQL ≈ 11.22 p _{0.50} ≈ 14.27 LTPD ≈ 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.51.C
	Constant	ASN = 127, ENS = 1	ASN, Cost and Table Tabs	6.51.D
	Constant	Protection constant	List Window and Summary Tab	6.51.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for variables sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.51.F
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.52.A
	ANSI Z1.9, p. 91	n=109, M=9.73, v=1.005	Z1.9 Dialog Box	6.52.B
	Constant	ASN = 109, ENS = 1	ASN, Cost and Table Tabs	6.52.C
	Constant	Protection constant	List Window and Summary Tab	6.52.D
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.52.E
	AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 2 Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 93		n=56, M=20.90, v=1.009	Z1.9 Dialog Box	6.53.B
Constant		ASN = 56, ENS = 1	ASN, Cost and Table Tabs	6.53.C
Constant		Protection constant	List Window and Summary Tab	6.53.D
Consistency		AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	6.53.E
AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 2 Full Switching		ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
	ANSI Z1.9, p. 91, 93	N: n=127, M=14.02, v=1.004 T: n=109, M=9.73, v=1.005 R: n=56, M=20.90, v=1.009	Z1.9 Dialog Box	6.54.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.54.C
	Constant	ENS = 1	Cost and Table Tabs	6.54.D
	Constant	Protection Varies	List Window and Summary Tab	6.54.E
	AQL = 10% L-3 150000 lot size SD Known 1 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box
ANSI Z1.9, p. 91		N: n=127, M=14.02, v=1.004 T: n=109, M=9.73, v=1.005	Z1.9 Dialog Box	6.55.B
Consistency		OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.55.C
Constant		ENS = 1	Cost and Table Tabs	6.55.D
Constant		Protection Varies	List Window and Summary Tab	6.55.E

Table 6: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 10% L-3 150000 lot size SD Known 2 Spec Form 2 Normal	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.56.A
	ANSI Z1.9, p. 91, 95	n=127, M=14.02, v=1.004, MPD=0.271	Z1.9 Dialog Box	6.56.B
	ANSI Z1.9, p. 99	AQL ≈ 11.22 p _{0.50} ≈ 14.27 LTPD ≈ 16.98	List Window OC, Summary, Percentiles, Table Tabs	6.56.C
	Constant	ASN = 127, ENS = 1	ASN, Cost and Table Tabs	6.56.D
	Constant	Protection Varies	List Window and Summary Tab	6.56.E
	Consistency	OC curve is identical to 1 spec form 2 plan	OC and Table Tabs	6.56.F
AQL = 10% L-3 150000 lot size SD Known 2 Spec Form 2 Tightened	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.57.A
	ANSI Z1.9, p. 91, 95	n=109, M=9.73, v=1.005, MPD=0.271	Z1.9 Dialog Box	6.57.B
	Constant	ASN = 109, ENS = 1	ASN, Cost and Table Tabs	6.57.C
	Constant	Protection Varies	List Window and Summary Tab	6.57.D
	Consistency	OC curve is identical to 1 spec form 2 plan	OC and Table Tabs	6.57.E
AQL = 10% L-3 150000 lot size SD Known 2 Spec Form 2 Reduce	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.58.A
	ANSI Z1.9, p. 9, 953	n=56, M=20.90, v=1.009, MPD=0.271	Z1.9 Dialog Box	6.58.B
	Constant	ASN = 56, ENS = 1	ASN, Cost and Table Tabs	6.58.C
	Constant	Protection Varies	List Window and Summary Tab	6.58.D
	Consistency	OC curve is identical to 1 spec form 2 plan	OC and Table Tabs	6.58.E
AQL = 10% L-3 150000 lot size SD Known 2 Spec Form 2 Full Switching	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.59.A
	ANSI Z1.9, p. 91, 93, 95	N: n=127, M=14.02, v=1.004, T: n=109, M=9.73, v=1.005, R: n=56, M=20.90, v=1.009, MPD=0.271	Z1.9 Dialog Box	6.59.B
	Consistency	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened	OC, ASN Tabs	6.59.C
	Constant	ENS = 1	Cost and Table Tabs	6.59.D
	Constant	Protection Varies	List Window and Summary Tab	6.59.E
AQL = 10% L-3 150000 lot size SD Known 2 Spec Form 2 No Reduced	ANSI Z1.9, p. 5	Letter Code = P	Z1.9 Dialog Box	6.60.A
	ANSI Z1.9, p. 91, 95	N: n=127, M=14.02, v=1.004, T: n=109, M=9.73, v=1.005, MPD=0.271	Z1.9 Dialog Box	6.60.B
	Consistency	OC, ASN curves bounded by two curves, starting closest to normal and ending closest to tightened	OC, ASN Tabs	6.60.C
	Constant	ENS = 1	Cost and Table Tabs	6.60.D
	Constant	Protection Varies	List Window and Summary Tab	6.60.E

Table 7: Test Cases for Defects Per Unit – Single Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n=13, a=0 no curtailing all lot sizes	ANSI Z1.4, p. 39	AQL = 0.395 LTPD = 17.7	List Window OC, Summary, Percentiles, Table Tabs	7.1.A
	ANSI Z1.4, p. 39	$P_{0.99} = 0.077$ $P_{0.50} = 5.33$ $P_{0.01} = 35.4$	Percentiles Tab	7.1.B
	ANSI Z1.4, p. 23	AOQL = 2.8	List Window AOQ, Summary Tabs	7.1.C
	Constant	ASN = 13	ASN, Table Tabs	7.1.D
	Constant	E #Stages = 1	Cost, Table Tabs	7.1.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	7.1.F
n=2000, a=21 no curtailing all lot sizes	ANSI Z1.4, p. 61	AQL = 0.745 LTPD = 1.41	List Window OC, Summary, Percentiles, Table Tabs	7.2.A
	ANSI Z1.4, p. 61	$P_{0.99} = 0.629$ $P_{0.50} = 1.08$ $P_{0.01} = 1.72$	Percentiles Tab	7.2.B
	ANSI Z1.4, p. 23	AOQL = 0.73	List Window AOQ, Summary Tabs	7.2.C
	Constant	ASN = 2000	ASN, Table Tabs	7.2.D
	Constant	E #Stages = 1	Cost, Table Tabs	7.2.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	7.2.F
n=10, c=1, N=100	EXCEL	OC(5) = B(1 5,10/100)=0.9185 OC(10) = B(1 10,10/100)=0.7361 OC(20) = B(1 20,10/100)=0.3917 OC(30) = B(1 30,10/100)=0.1837	OC, Table Tabs	7.3
n=13, a=0 curtail on rejection	Hald and Moller	ASN (0.395) = .975 * 13 = 12.7 ASN (17.7) = 0.391 * 13 = 5.08	ASN, Table Tabs	7.4

Table 8: Test Cases for Defects Per Unit – Double Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n1=13, a1=0, r1=2, n2=13, a2=1 all lot sizes	EXCEL	OC (3%) = 0.8558 ASN (3%) = 16.43 ENS(3%) = 1.264	Table Tabs	8.1
n1=13, a1=0, r1=2, n2=13, a2=1 lot size = 100	EXCEL	OC (3%) = 0.872 ASN (3%) = 16.84 ENS(3%) = 1.295	Table Tabs	8.2

Table 9: Test Cases for Defects Per Unit – Multiple Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 all lot sizes No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	9.1
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 All lot sizes Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	9.2
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 N=100 No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	9.3
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 N=100 Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	9.4

Table 10: Test Cases for Defects Per Units – ANSI Z1.4 Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.1.A
	ANSI Z1.4, p. 11	n=1250, a=0	Z1.4 Dialog Box	10.1.B
	ANSI Z1.4, p. 59	AQL = 0.00410 LTPD = 0.184	List Window OC, Summary, Percentiles, Table Tabs	10.1.C
	ANSI Z1.4, p. 59	$p_{0.99} = 0.000804$ $p_{0.50} = 0.0555$ $p_{0.01} = 0.368$	Percentiles Tab	10.1.D
	ANSI Z1.4, p. 23	AOQL = 0.029	List Window AOQ, Summary Tabs	10.1.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.1.F
AQL = 0.01% S-1 2-8 lot size Double Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.2.A
	ANSI Z1.4, p. 14	Use corresponding single sampling plan n=1250, a=0	Z1.4 Dialog Box	10.2.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.2.C
AQL = 0.01% S-1 2-8 lot size Multiple Normal	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.3.A
	ANSI Z1.4, p. 18	Use corresponding single sampling plan n=1250, a=0	Z1.4 Dialog Box	10.3.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.3.C

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.4.A
	ANSI Z1.4, p. 12	n=2000, a=0	Z1.4 Dialog Box	10.4.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.4.C
AQL = 0.01% S-1 2-8 lot size Double Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.5.A
	ANSI Z1.4, p. 15	Use corresponding single sampling plan n=2000, a=0	Z1.4 Dialog Box	10.5.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.5.C
AQL = 0.01% S-1 2-8 lot size Multiple Tightened	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.6.A
	ANSI Z1.4, p. 20	Use corresponding single sampling plan n=2000, a=0	Z1.4 Dialog Box	10.6.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.6.C

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.7.A
	ANSI Z1.4, p. 13	n=500, a=0	Z1.4 Dialog Box	10.7.B
	ANSI Z1.4, p. 55	AQL = 0.0103 LTPD = 0.461	List Window OC, Summary, Percentiles, Table Tabs	10.7.C
	ANSI Z1.4, p. 55	$p_{0.99} = 0.00201$ $p_{0.50} = 0.139$ $p_{0.01} = 0.921$	Percentiles Tab	10.7.D
	ANSI Z1.4, p. 23	AOQL = 0.074	List Window AOQ, Summary Tabs	10.7.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.7.F
AQL = 0.01% S-1 2-8 lot size Double Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.8.A
	ANSI Z1.4, p. 16	Use corresponding single sampling plan n=500, a=0	Z1.4 Dialog Box	10.8.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.8.C
AQL = 0.01% S-1 2-8 lot size Multiple Reduced	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.9.A
	ANSI Z1.4, p. 22	Use corresponding single sampling plan n=500, a=0	Z1.4 Dialog Box	10.9.B
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.9.C

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single Full Switching	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.10.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 16 batches free of defects to switch to reduced	Z1.4 Dialog Box	10.10.B
	ANSI Z1.4, p. 85	AQL = 0.00573 LTPD = 0.115	List Window OC, Summary, Percentiles, Table Tabs	10.10.C
	ANSI Z1.4, p. 85	$p_{0.99} = 0.00167$ $p_{0.50} = 0.0358$ $p_{0.01} = 0.231$	Percentiles Tab	10.10.D
	ANSI Z1.4, p. 64	AOQL = 0.019	List Window AOQ, Summary Tabs	10.10.E
	ANSI Z1.4, p. 70	ASN(0.00167) \approx 596 ASN(0.00573) \approx 901 ASN(0.0358) \approx 1940 ASN(0.115) \approx 2000 ASN(0.231) \approx 2000	ASN, Table Tabs	10.10.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.10.G
	Constant	Varying Protection	List Window Summary Tab	10.10.H
	Consistency	Min Pa(AQL) = $OC_{Tightened}(AQL)$	Summary Tab	10.10.I
	Consistency	Max Pa(LTPD) = $OC_{Reduced}(LTPD)$	Summary Tab	10.10.J
	Constant	Rate AQL = 0%	Summary Tab	10.10.K
	EXCEL Calc.	Rate LTPD \approx 30.7%	Summary Tab	10.10.L

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single No limit numbers	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.11.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 10 batches free of defects to switch to reduced	Z1.4 Dialog Box	10.11.B
	ANSI Z1.4, p. 85	AQL \approx 0.00573 LTPD \approx 0.115	List Window OC, Summary, Percentiles, Table Tabs	10.11.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.00167$ $p_{0.50} \approx 0.0358$ $p_{0.01} \approx 0.231$	Percentiles Tab	10.11.D
	ANSI Z1.4, p. 64	AOQL \approx 0.019	List Window AOQ, Summary Tabs	10.11.E
	Simulation	ASN(0.00167) \approx 565.5 OC(0.00167) \approx 0.9906 ASN(0.00573) \approx 761.0 OC(0.00573) \approx 0.9576 ASN(0.0358) \approx 1936 OC(0.0358) \approx 0.5017 ASN(0.115) \approx 2000 OC(0.115) \approx 0.1003	OC, ASN, Table Tabs	10.11.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.11.G
	Constant	Varying Protection	List Window Summary Tab	10.11.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	10.11.I
	Consistency	Max Pa(LTPD) = OC _{Reduced} (LTPD)	Summary Tab	10.11.J
	Constant	Rate AQL = 0%	Summary Tab	10.11.K
	EXCEL Calc.	Rate LTPD \approx 30.7%	Summary Tab	10.11.L

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 0.01% S-1 2-8 lot size Single No reduced inspection	ANSI Z1.4, p. 10	Letter Code = A	Z1.4 Dialog Box	10.12.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=1250, a=0, Tightened: n=2000, a=0	Z1.4 Dialog Box	10.12.B
	ANSI Z1.4, p. 85	AQL \approx 0.00573 LTPD \approx 0.115	List Window OC, Summary, Percentiles, Table Tabs	10.12.C
	ANSI Z1.4, p. 85	$P_{0.99} \approx 0.00167$ $P_{0.50} \approx 0.0358$ $P_{0.01} \approx 0.231$	Percentiles Tab	10.12.D
	ANSI Z1.4, p. 64	AOQL \approx 0.019	List Window AOQ, Summary Tabs	10.12.E
	Simulation	ASN(0.00167) \approx 1256 OC(0.00167) \approx 0.9792 ASN(0.00573) \approx 1318 OC(0.00573) \approx 0.9274 ASN(0.0358) \approx 1938 OC(0.0358) \approx 0.5011 ASN(0.115) \approx 2000 OC(0.115) \approx 0.1003	OC, ASN, Table Tabs	10.12.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.12.G
	Constant	Varying Protection	List Window and Summary Tab	10.12.H
	Consistency Check	Min Pa(AQL) = OC _{Tightened} (0.00573)	Summary Tab	10.12.I
	Consistency Check	Max Pa(LTPD) = OC _{Normal} (0.115)	Summary Tab	10.12.J
	Constant	Rate AQL = 0%	Summary Tab	10.12.K
	Constant	Rate LTPD = 0%	Summary Tab	10.12.L

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.13.A
	ANSI Z1.4, p. 11	n=200, a=5	Z1.4 Dialog Box	10.13.B
	ANSI Z1.4, p. 51	AQL = 1.31 LTPD = 4.64	List Window OC, Summary, Percentiles, Table Tabs	10.13.C
	ANSI Z1.4, p. 51	$p_{0.99} = 0.893$ $p_{0.50} = 2.84$ $p_{0.01} = 6.55$	Percentiles Tab	10.13.D
	ANSI Z1.4, p. 23	AOQL = 1.6	List Window AOQ, Summary Tabs	10.13.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.13.F
AQL = 1.0% L-II 10,000 lot size Double Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.14.A
	ANSI Z1.4, p. 14	n1=125, a1=2, r1=5, n2=125, a2=6	List Window	10.14.B
	ANSI Z1.4, p. 51	AQL \approx 1.31 LTPD \approx 4.64	List Window OC, Summary, Percentiles, Table Tabs	10.14.C
	ANSI Z1.4, p. 51	$p_{0.99} \approx 0.893$ $p_{0.50} \approx 2.84$ $p_{0.01} \approx 6.55$	Percentiles Tab	10.14.D
	ANSI Z1.4, p. 23	AOQL \approx 1.6	List Window AOQ, Summary Tabs	10.14.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, AOQL, ASN and E #stages agree with those values for double sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.14.F

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Multiple Normal	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.15.A
	ANSI Z1.4, p. 18	n1=50, a1=#, r1=4, n2=50, a2=1, r2=5, n3=50, a3=2, r3=6, n4=50, a4=3, r4=7, n5=50, a5=5, r5=8, n6=50, a6=7, r6=9, n7=50, a7=9, r7=10	Z1.4 Dialog Box	10.15.B
	ANSI Z1.4, p. 51	AQL \approx 1.31 LTPD \approx 4.64	List Window OC, Summary, Percentiles, Table Tabs	10.15.C
	ANSI Z1.4, p. 51	p _{0.99} \approx 0.893 p _{0.50} \approx 2.84 p _{0.01} \approx 6.55	Percentiles Tab	10.15.D
	ANSI Z1.4, p. 23	AOQL \approx 1.6	List Window AOQ, Summary Tabs	10.15.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , AOQL, ASN and E #stages agree with those values for multiple sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.15.F

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.16.A
	ANSI Z1.4, p. 12	n=200, a=3	Z1.4 Dialog Box	10.16.B
	ANSI Z1.4, p. 51	AQL = 0.683 LTPD = 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.16.C
	ANSI Z1.4, p. 51	$P_{0.99} = 0.412$ $P_{0.50} = 1.84$ $P_{0.01} = 5.02$	Percentiles Tab	10.16.D
	ANSI Z1.4, p. 24	AOQL = 0.97	List Window AOQ, Summary Tabs	10.16.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, and AOQL agree with those values for single sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.16.F
AQL = 1.0% L-II 10,000 lot size Double Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.17.A
	ANSI Z1.4, p. 15	$n1=125$, $a1=1$, $r1=4$, $n2=125$, $a2=4$	Z1.4 Dialog Box	10.17.B
	ANSI Z1.4, p. 51	AQL \approx 0.683 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.17.C
	ANSI Z1.4, p. 51	$P_{0.99} \approx 0.412$ $P_{0.50} \approx 1.84$ $P_{0.01} \approx 5.02$	Percentiles Tab	10.17.D
	ANSI Z1.4, p. 24	AOQL \approx 0.97	List Window AOQ, Summary Tabs	10.17.E
	Consistency	AQL, LTPD, $p_{0.99}$, $p_{0.50}$, $p_{0.01}$, AOQL, ASN and E #stages agree with those values for double sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.17.F

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Multiple Tightened	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.18.A
	ANSI Z1.4, p. 20	n1=50, a1=#, r1=3, n2=50, a2=0, r2=3, n3=50, a3=1, r3=4, n4=50, a4=2, r4=5, n5=50, a5=3, r5=6, n6=50, a6=4, r6=6, n7=50, a7=6, r7=7	Z1.4 Dialog Box	10.18.B
	ANSI Z1.4, p. 51	AQL \approx 0.683 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.18.C
	ANSI Z1.4, p. 51	P _{0.99} \approx 0.412 P _{0.50} \approx 1.84 P _{0.01} \approx 5.02	Percentiles Tab	10.18.D
	ANSI Z1.4, p. 24	AOQL \approx 0.97	List Window AOQ, Summary Tabs	10.18.E
	Consistency	AQL, LTPD, p _{0.99} , p _{0.50} , p _{0.01} , AOQL, ASN and E #stages agree with those values for multiple sampling plan with same parameters	List Window OC, AOQ, Summary, Percentiles, Table Tabs	10.18.F

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.19.A
	ANSI Z1.4, p. 13	n=80, a=4	Z1.4 Dialog Box	10.19.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with single sampling plan	List Window OC, Summary, Percentiles, Table Tabs	10.19.C
AQL = 1.0% L-II 10,000 lot size Double Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.20.A
	ANSI Z1.4, p. 15	n1=50, a1=0, r1=4, n2=50, a2=5	Z1.4 Dialog Box	10.20.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with double sampling plan	List Window OC, Summary, Percentiles, Table Tabs	10.20.C
AQL = 1.0% L-II 10,000 lot size Multiple Reduced	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.21.A
	ANSI Z1.4, p. 20	n1=20, a1=#, r1=3, n2=20, a2=0, r2=4, n3=20, a3=0, r3=5, n4=20, a4=1, r4=6, n5=20, a5=2, r5=7, n6=20, a6=3, r6=7, n7=20, a7=7, r7=8	Z1.4 Dialog Box	10.21.B
	Consistency	AQL, LTPD, P0.99, P0.50, P0.01, and AOQL agree with multiple sampling plan	List Window OC, Summary, Percentiles, Table Tabs	10.21.C

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single Full Switching	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.22.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, switch to reduced if 10 batches accepted with no more than 14 defectives.	Z1.4 Dialog Box	10.22.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.22.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.941$ $p_{0.50} \approx 1.95$ $p_{0.01} \approx 5.02$	Percentiles Tab	10.22.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	10.22.E
	Simulation	ASN(0.941) \approx 146.6 OC(0.941) \approx 0.9922 ASN(1.23) \approx 192.7 OC(1.23) \approx 0.9522 ASN(1.95) \approx 200.0 OC(1.95) \approx 0.4972 ASN(3.34) \approx 200 OC(3.34) \approx 0.10006	OC, ASN, Table Tabs	10.22.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.22.G
	Constant	Varying Protection	List Window Summary Tab	10.22.H
	Consistency	Min Pa(AQL) = $OC_{Tightened}(AQL)$	Summary Tab	10.22.I
	Consistency	Max Pa(LTPD) = $OC_{Reduced}(LTPD)$	Summary Tab	10.22.J
	Constant	Rate AQL = 0%	Summary Tab	10.22.K
	EXCEL Calc.	Rate LTPD \approx 34.1%	Summary Tab	10.22.L

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single No limit numbers	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.23.A
	ANSI Z1.4, pp. 11-13, 29	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, switch to reduced if 10 batches accepted.	Z1.4 Dialog Box	10.23.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.23.C
	ANSI Z1.4, p. 85	$p_{0.99} \approx 0.941$ $p_{0.50} \approx 1.95$ $p_{0.01} \approx 5.02$	Percentiles Tab	10.23.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	10.23.E
	Simulation	ASN(0.941) \approx 116.7 OC(0.941) \approx 0.9952 ASN(1.23) \approx 140.9 OC(1.23) \approx 0.9725 ASN(1.95) \approx 198.2 OC(1.95) \approx 0.5039 ASN(3.34) \approx 200 OC(3.34) \approx 0.10006	OC, ASN, Table Tabs	10.23.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.23.G
	Constant	Varying Protection	List Window Summary Tab	10.23.H
	Consistency	Min Pa(AQL) = $OC_{Tightened}(AQL)$	Summary Tab	10.23.I
	Consistency	Max Pa(LTPD) = $OC_{Reduced}(LTPD)$	Summary Tab	10.23.J
	Constant	Rate AQL = 0%	Summary Tab	10.23.K
	EXCEL Calc.	Rate LTPD \approx 34.1%	Summary Tab	10.23.L

Table 10: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
AQL = 1.0% L-II 10,000 lot size Single No reduced inspection	ANSI Z1.4, p. 10	Letter Code = L	Z1.4 Dialog Box	10.24.A
	ANSI Z1.4, pp. 11-12	Normal: n=200, a=5, Tightened: n=200, a=3,	Z1.4 Dialog Box	10.24.B
	ANSI Z1.4, p. 85	AQL \approx 1.23 LTPD \approx 3.34	List Window OC, Summary, Percentiles, Table Tabs	10.24.C
	ANSI Z1.4, p. 85	$P_{0.99} \approx 0.941$ $P_{0.50} \approx 1.95$ $P_{0.01} \approx 5.02$	Percentiles Tab	10.24.D
	ANSI Z1.4, p. 64	AOQL \approx 1.3	List Window AOQ, Summary Tabs	10.24.E
	Simulation	ASN(0.941) = 200 OC(0.941) \approx 0.9868 ASN(1.23) = 200 OC(1.23) \approx 0.9495 ASN(1.95) = 200 OC(1.95) \approx 0.4969 ASN(3.34) = 200 OC(3.34) \approx 0.10006	OC, ASN, Table Tabs	10.24.F
	Constant	E #Stages = 1	Cost, Table Tabs	10.24.G
	Constant	Varying Protection	List Window Summary Tab	10.24.H
	Consistency	Min Pa(AQL) = OC _{Tightened} (AQL)	Summary Tab	10.24.I
	Consistency	Max Pa(LTPD) = OC _{Normal} (LTPD)	Summary Tab	10.24.J
	Constant	Rate AQL = 0%	Summary Tab	10.24.K
	EXCEL Calc.	Rate LTPD = 0%	Summary Tab	10.24.L

Table 11: Test Cases for Defects Per Quantity – Single Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n=13, a=0 no curtailing all lot sizes	ANSI Z1.4, p. 39	AQL = 0.00395 LTPD = 0.177	List Window and OC, Summary, Percentiles, Table Tabs	11.1.A
	ANSI Z1.4, p. 39	$P_{0.99} = 0.00077$ $P_{0.50} = 0.0533$ $P_{0.01} = 0.354$	Percentiles Tab	11.1.B
	ANSI Z1.4, p. 23	AOQL = 0.028	List Window AOQ, Summary Tabs	11.1.C
	Constant	ASN = 13	ASN, Table Tabs	11.1.D
	Constant	E #Stages = 1	Cost, Table Tabs	11.1.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	11.1.F
n=2000, a=21 no curtailing all lot sizes	ANSI Z1.4, p. 61	AQL = 0.00745 LTPD = 0.0141	List Window and OC, Summary, Percentiles, Table Tabs	11.2.A
	ANSI Z1.4, p. 61	$P_{0.99} = 0.00629$ $P_{0.50} = 0.0108$ $P_{0.01} = 0.0172$	Percentiles Tab	11.2.B
	ANSI Z1.4, p. 23	AOQL = 0.0073	List Window, AOQ, Summary Tabs	11.2.C
	Constant	ASN = 2000	ASN, Table Tabs	11.2.D
	Constant	E #Stages = 1	Cost, Table Tabs	11.2.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	11.2.F
n=0.13, a=0 no curtailing all lot sizes (Based on fact protection function of np. Therefore dividing n by 100 increases the percentiles and AOQL by a factor of 100)	ANSI Z1.4, p. 39	AQL = 0.395 LTPD = 17.7	List Window and OC, Summary, Percentiles, Table Tabs	11.3.A
	ANSI Z1.4, p. 39	$P_{0.99} = 0.077$ $P_{0.50} = 5.33$ $P_{0.01} = 35.4$	Percentiles Tab	11.3.B
	ANSI Z1.4, p. 23	AOQL = 2.8	List Window AOQ, Summary Tabs	11.3.C
	Constant	ASN = 0.13	ASN, Table Tabs	11.3.D
	Constant	E #Stages = 1	Cost, Table Tabs	11.3.E
	Constant	Constant Protection Min Pa(AQL) = 0.95 Rate AQL = 100% Max Pa(LTPD) = 0.10 Rate LTPD = 100%	List Window Summary Tab	11.3.F
n=10, c=1, N=100	EXCEL	OC(0.05) = B(1 5,10/100) = 0.9185 OC(0.1) = B(1 10,10/100)=0.7361 OC(0.2) = B(1 20,10/100)=0.3917 OC(0.3) = B(1 30,10/100)=0.1837	OC, Table Tabs	11.4
n=13, a=0 curtail on rejection	Hald and Moller	ASN (0.00395) = .975 * 13 = 12.7 ASN (0.177) = 0.391 * 13 = 5.08	ASN, Table Tabs	11.5

Table 12: Test Cases for Defects Per Quantity – Double Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
n1=13, a1=0, r1=2, n2=13, a2=1 all lot sizes	EXCEL	OC (0.03) = 0.8558 ASN (0.03) = 16.43 ENS(0.03) = 1.264	Table Tabs	12.1
n1=13, a1=0, r1=2, n2=13, a2=1 lot size = 100	EXCEL	OC (0.03) = 0.872 ASN (0.03) = 16.84 ENS(0.03) = 1.295	Table Tabs	12.2
n1=0.13, a1=0, r1=2, n2=13, a2=1 all lot sizes	EXCEL	OC (3) = 0.8558 ASN (3) = 0.1643 ENS(3) = 1.264	Table Tabs	12.3
n1=0.13, a1=0, r1=2, n2=13, a2=1 lot size = 1	EXCEL	OC (3) = 0.872 ASN (3) = 0.1684 ENS(3) = 1.295	Table Tabs	12.4

Table 13: Test Cases for Defects Per Quantity – Multiple Sampling Plans

Sampling Plan	Source	Expected Result	Location	ID
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 all lot sizes No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.1
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 All lot sizes Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.2
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 N=100 No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.3
S=2, n1=13, a1=0, r1=2, n2=13, a2=1, r2=2 N=100 Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.4
S=2, n1=0.13, a1=0, r1=2, n2=0.13, a2=1, r2=2 all lot sizes No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.5
S=2, n1=0.13, a1=0, r1=2, n2=0.13, a2=1, r2=2 All lot sizes Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.6
S=2, n1=0.13, a1=0, r1=2, n2=0.13, a2=1, r2=2 N=1 No curtailing	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.7
S=2, n1=0.13, a1=0, r1=2, n2=0.13, a2=1, r2=2 N=1 Curtail reject	Consistency	All tabs agree with tabs for double sampling plan with same parameters	List Window OC, AOQ, Cost, Summary, Percentiles, Table Tabs	13.8

Table 14: Test Cases for Selection for Defective Units

Sampling Plan	Source	Expected Result	Location	ID
Single AQL = 0% LTPD = 100%	Constant	Any plan	List Window	14.1
Single AQL = 0% LTPD = 10%	Consistency	LTPD <= 10%	List Window	14.2
Single AQL = 1% LTPD = 100%	Consistency	AQL >= 1%	List Window	14.3
Single AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.4
Single AQL = 0% Max AQL = 1% LTPD = 100%	Consistency	AQL <= 1%	List Window	14.5
Single AQL = 0% Max AQL = 1% LTPD = 10%	Consistency	AQL <= 1% and LTPD <= 10%	List Window	14.6
Single AQL = 1% Max AQL = 1.2% LTPD = 10%	Consistency	1% <= AQL <= 1.2% and LTPD <= 10%	List Window	14.7
Double AQL = 0% LTPD = 100%	Consistency	Use single instead	Message Box	14.8
Double AQL = 0% LTPD = 10%	Consistency	Use single instead	List Window	14.9
Double AQL = 1% LTPD = 100%	Consistency	Use single instead	Message Box	14.10
Double AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.11
Double AQL = 0% Max AQL = 1% LTPD = 100%	Consistency	Use single instead	Message Box	14.12
Double AQL = 0% Max AQL = 1% LTPD = 10%	Consistency	Use single instead	Message Box	14.13
Double AQL = 1% Max AQL = 1.1% LTPD = 10%	Consistency	1% <= AQL <= 1.1% and LTPD <= 10%	List Window	14.14

Table 14: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
Variables SD Known 1 Spec AQL = 0% LTPD = 100%	Consistency	Any plan	List Window	14.15
Variables SD Known 1 Spec AQL = 1% LTPD = 100%	Consistency	AQL >= 1%	List Window	14.16
Variables SD Known 1 Spec AQL = 0% LTPD = 10%	Consistency	LTPD <= 10%	List Window	14.17
Variables SD Known 1 Spec AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.18
Variables SD Known 2 Spec Cp=1 AQL = 0% LTPD = 100%	Consistency	Message box that AQL below minimum possible for Cp=1	List Window	14.19
Variables SD Known 2 Spec Cp=1 AQL = 1% LTPD = 100%	Consistency	AQL >= 1%	List Window	14.20
Variables SD Known 2 Spec Cp=1 AQL = 0% LTPD = 10%	Consistency	Message box that AQL below minimum possible for Cp=1	List Window	14.21
Variables SD Known 2 Spec Cp=1 AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.22

Table 14: (cont.)

Sampling Plan	Source	Expected Result	Location	ID
Variables SD Unkown 1 Spec AQL = 0% LTPD = 100%	Consistency	Any plan	List Window	14.23
Variables SD Unkown 1 Spec AQL = 1% LTPD = 100%	Consistency	AQL >= 1%	List Window	14.24
Variables SD Unkown 1 Spec AQL = 0% LTPD = 10%	Consistency	LTPD <= 10%	List Window	14.25
Variables SD Unkown 1 Spec AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.26
Variables SD Unkown 2 Spec AQL = 0% LTPD = 100%	Consistency	Any plan	List Window	14.27
Variables SD Unkown 2 Spec AQL = 1% LTPD = 100%	Consistency	AQL >= 1%	List Window	14.28
Variables SD Unkown 2 Spec AQL = 0% LTPD = 10%	Consistency	LTPD <= 10%	List Window	14.29
Variables SD Unkown 2 Spec AQL = 1% LTPD = 10%	Consistency	AQL >= 1% and LTPD <= 10%	List Window	14.30

Table 15: Test Cases for Selection for Defects Per Unit

Sampling Plan	Source	Expected Result	Location	ID
Single AQL = 0 dphu LTPD = 10000 dphu	Constant	LTPD <= 10000 dphu	List Window	15.1
Single AQL = 0 dphu LTPD = 10 dphu	Consistency	LTPD <= 10 dphu	List Window	15.2
Single AQL = 10 dphu LTPD = 10000 dphu	Consistency	AQL >= 10 dphu and LTPD <= 10000 dphu	List Window	15.3
Single AQL = 1 dphu LTPD = 10 dphu	Consistency	AQL >= 1 dphu and LTPD <= 10 dphu	List Window	15.4
Single AQL = 0 dphu Max AQL = 1 dphu LTPD = 10000 dphu	Consistency	AQL <= 1 dphu and LTPD <= 10000 dphu	List Window	15.5
Single AQL = 0 dphu Max AQL = 1 dphu LTPD = 10 dphu	Consistency	AQL <= 1 dphu and LTPD <= 10 dphu	List Window	15.6
Single AQL = 1 dphu Max AQL = 1.2 dphu LTPD = 10 dphu	Consistency	1 dphu <= AQL <= 1.2 dphu and LTPD <= 10 dphu	List Window	15.7
Double AQL = 0 dphu LTPD = 10000 dphu	Consistency	Use single instead	Message Box	15.8
Double AQL = 0 dphu LTPD = 10 dphu	Consistency	Use single instead	List Window	15.9
Double AQL = 1 dphu LTPD = 100 dphu	Consistency	Use single instead	Message Box	15.10
Double AQL = 1 dphu LTPD = 10 dphu	Consistency	AQL >= 1 dphu and LTPD <= 10 dphu	List Window	15.11
Double AQL = 0 dphu Max AQL = 1 dphu LTPD = 10000 dphu	Consistency	Use single instead	Message Box	15.12
Double AQL = 0 dphu Max AQL = 1 dphu LTPD = 10 dphu	Consistency	Use single instead	Message Box	15.13
Double AQL = 1 dphu Max AQL = 1.1 dphu LTPD = 10 dphu	Consistency	1 dphu <= AQL <= 1.1 dphu and LTPD <= 10 dphu	List Window	15.14

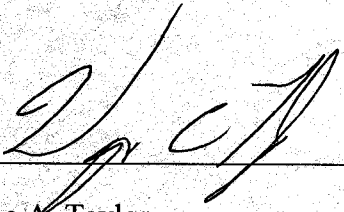
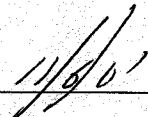
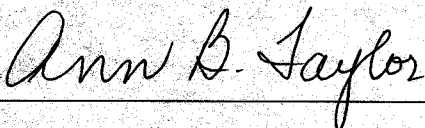
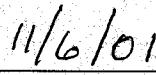
Table 16: Test Cases for Selection for Defects Per Quantity

Sampling Plan	Source	Expected Result	Location	ID
Single AQL = 0 LTPD = 10000	Constant	LTPD <= 10000	List Window	16.1
Single AQL = 0 LTPD = 10	Consistency	LTPD <= 10	List Window	16.2
Single AQL = 100 LTPD = 10000	Consistency	AQL >= 100 and LTPD <= 10000	List Window	16.3
Single AQL = 1 LTPD = 10	Consistency	AQL >= 1 and LTPD <= 10	List Window	16.4
Single AQL = 0 Max AQL = 1 LTPD = 10000	Consistency	AQL <= 1 and LTPD <= 10000	List Window	16.5
Single AQL = 0 Max AQL = 1 LTPD = 10	Consistency	AQL <= 1 and LTPD <= 10	List Window	16.6
Single AQL = 1 Max AQL = 1.2 LTPD = 10	Consistency	1 <= AQL <= 1.2 and LTPD <= 10	List Window	16.7
Double AQL = 0 LTPD = 10000	Consistency	Use single instead	Message Box	16.8
Double AQL = 0 LTPD = 10	Consistency	Use single instead	List Window	16.9
Double AQL = 1 LTPD = 100	Consistency	Use single instead	Message Box	16.10
Double AQL = 1 LTPD = 10	Consistency	AQL >= 1 and LTPD <= 10	List Window	16.11
Double AQL = 0 Max AQL = 1 LTPD = 10000	Consistency	Use single instead	Message Box	16.12
Double AQL = 0 Max AQL = 1 LTPD = 10	Consistency	Use single instead	Message Box	16.13
Double AQL = 1 Max AQL = 1.1 LTPD = 10	Consistency	1 <= AQL <= 1.1 and LTPD <= 10	List Window	16.14

Sampling Plan Analyzer 2.0 Validation Final Report

Report Number: TE-01-2

Approvals:

 _____	 _____
Dr. Wayne A. Taylor Study Director	Date
 _____	 _____
Ann B. Taylor President	Date

Sampling Plan Analyzer 2.0

Validation Final Report

Report Number: TE-01-2

1.0 Introduction

This document reports the results of executing Protocol TE-01-2. The program was installed on the following computer:

Network Name:	Wayne
Type:	Compaq Presario 1800T
Operating System:	Windows 2000 Professional (Service Pack 2 installed) Version 5.0.2195
Processor:	x86 Family 6 Model 8 Stepping 3 Intel 640 Mhz
Memory:	130 MB

The program file installed and executed was:

File Name:	Sampling Plan Analyzer.exe
File Date:	10/1/2001
File Time:	9:08 PM
File Size:	3,044 KB

2.0 Results

The test cases provided in Tables 1-16 in the protocol were executed and the results displayed in Tables 1-16 of this document.

The test cases are of three types. The first type is when exact values are available. All such test cases passed. The second type is consistency checks. Again all such test passed.

The third type is when an approximate value is known, typically being published in a standard. These test cases are designated by the symbol \approx . The protocol requires the program to be within 10% of this value to pass automatically. It also allows further investigation of values beyond 10% and such cases to pass if it can be demonstrated that the value from Sampling Plan Analyzer is correct. In these cases, justifications must be provided in the form of hand calculations, simulation results, etc. The protocol stated: "It is expected that several discrepancies will be found because some test cases are based on values in standards, which sometimes use crude approximations."

As expected several such cases exceeded the 10% rule. They are: 4.11.C, 4.12.C, 4.12.D, 4.15.D, 4.17.C, 4.17.D, 4.23.D, 10.6.11, 10.12.C, 10.12.D, 10.17.C, and 10.17.D. All these cases involved ANSI Z1.4. The reasons for the discrepancies included:

- Only one set of OC curves were given for the switching rules even though there are 3 options with differing protection.
- The OC curves given are for the single sampling plans and only approximate those for the matching double and multiple plans.
- Sometimes the same OC curve was given for both defects (Poisson) and defectives (Binomial) cases.

Table 4 and 10 contains more detailed explanations for each individual case. In all cases, additional hand calculations and simulations were performed which verified the results given by Sampling Plan Analyzer were in fact correct. The hand calculations are contained in the file Sampling Plan Verifications.xls. The simulation program and results were saved in the subdirectory ANSI Z1.4.

3.0 Conclusion

All test cases passed. The validation has been successfully completed.

Table 1: Test Cases for Defective Units – Single Sampling Plans

ID	Results	Comments	Status
1.1.A	AQL = 0.39379, LTPD = 16.232 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
1.1.B	$p_{0.99} = 0.07728$, $p_{0.50} = 5.1923$, and $p_{0.01} = 29.83$ in Percentiles tab.		Passes
1.1.C	AOQL = 2.7257 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
1.1.D	ASN = 13 in ASN and Table tabs.		Passes
1.1.E	E #Stages = 1 in Cost and Table tabs.		Passes
1.1.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
1.2.A	AQL = 0.74583, LTPD = 1.4067 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
1.2.B	$p_{0.99} = 0.63002$, $p_{0.50} = 1.0832$, and $p_{0.01} = 1.712$ in Percentiles tab.		Passes
1.2.C	AOQL = 0.73364 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
1.2.D	ASN = 2000 in ASN and Table tabs.		Passes
1.2.E	E #Stages = 1 in Cost and Table tabs.		Passes
1.2.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
1.3	OC(5%) = 0.923143, OC(10%) = 0.738472, OC(20%) = 0.363049, and OC(30%) = 0.135625 in Table tab. OC tab consistent.		Passes
1.4.A	OC(18%) = 0.101832 in Table tab. OC tab consistent.		Passes
1.4.B	ASN(18%) = 10.4404 curtail on rejection in Table tab. ASN(18%) = 10.4174 full curtailing in Table tab. ASN tab consistent.		Passes
1.4.C	AOQ(18%) = 1.83298 in Table tab. AOQL = 4.1381 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
1.5	ASN(3%) = 78.4269, ASN(4%) = 75.912, and ASN(6%) = 67.6258 in Table tab. ASN tab consistent.		Passes
1.6	ASN(3%) = 76.6331, ASN(4%) = 74.6829, and ASN(6%) = 67.125 in Table tab. ASN tab consistent.		Passes
1.7	ASN(3%) = 77.7776, ASN(4%) = 76.3068, and ASN(6%) = 67.9625 in Table tab. ASN tab consistent.		Passes

Table 2: Test Cases for Defective Units – Double Sampling Plans

ID	Results	Comments	Status
2.1.A	OC(18%) = 0.0921728 in Table tab. OC tab consistent.		Passes
2.1.B	ASN(18%) = 15.8114 no curtailing in Table tab. ASN(18%) = 14.1104 curtailing on second stage in Table tab. ASN tab consistent.		Passes
2.1.C	AOQ(18%) = 1.65913% in Table tab. AOQ tab consistent.		Passes
2.1.D	OC(1.5967)=0.950002 in Table Tab and AQL=1.5967 in List window and Summary tab so consistent. OC(17.532)=0.100008 in Table Tab and AQL=17.532 in List window and Summary tab so consistent.		Passes
2.1.E	AOQL = 3.7664 in List window and Summary tab and AOQ(7.25)=3.76637 which is maximum in Table tab.		Passes
2.1.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
2.1.G	ENS(18%) = 1.21626 in Table tab. Cost tab consistent.		Passes
2.2	ASN(0%) = 50, ASN(1.5%) = 99.1063, and ASN(4%) = 104.683 in Table tab. ASN tab consistent.		Passes
2.3	ASN(0%) = 50, ASN(1.5%) = 86.0879, and ASN(4%) = 69.6153 in Table tab. ASN tab consistent.		Passes
2.4.A	ASN(X=4 or 16%) = 13.5322 no curtailing and ASN(X=4 or 16%) = 9.89478 full curtailing in Table tab. ASN tab consistent.		Passes
2.4.B	OC(X=4 or 16%) = 0.0965217 in Table tab. OC tab consistent.		Passes
2.4.C	ENS(X=4 or 16%) = 1.31652 in Table tab. Cost tab consistent.		Passes
2.5	ASN(5%) = 98.0976 no curtailing and ASN(5%) = 61.4476 curtailing on rejection both stages in Table tab. ASN tab consistent.		Passes

Table 3: Test Cases for Defective Units – Multiple Sampling Plans

ID	Results	Comments	Status
3.1.A	OC(18%) = 0.0921738 in Table tab. OC tab consistent.		Passes
3.1.B	ASN(18%) = 15.8114 no curtailing in Table tab. ASN(18%) = 14.1104 curtailing on second stage in Table tab. ASN tab consistent.		Passes
3.1.C	AOQ(18%) = 1.65913% in Table tab. AOQ tab consistent.		Passes
3.1.D	OC(1.5967)=0.94992 in Table Tab and AQL=1.5967 in List window and Summary tab so consistent. OC(17.532)=0.100008 in Table Tab and LTPD=17.532 in List window and Summary tab so consistent.		Passes
3.1.E	AOQL = 3.7664 in List window and Summary tab and AOQ(7.25)=3.76637 which is maximum in Table tab.		Passes
3.1.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
3.1.G	ENS(18%) = 1.21626 in Table tab. Cost tab consistent.		Passes
3.2	ASN(0%) = 50, ASN(1.5%) = 99.1063, and ASN(4%) = 104.683 in Table tab. ASN tab consistent.		Passes
3.3	ASN(0%) = 50, ASN(1.5%) = 86.0879, and ASN(4%) = 69.6153 in Table tab. ASN tab consistent.		Passes
3.4.A	ASN(X=4 or 16%) = 13.5322 no curtailing and ASN(X=4 or 16%) = 9.89478 full curtailing in Table tab. ASN tab consistent.		Passes
3.4.B	OC(X=4 or 16%) = 0.0965217 in Table tab. OC tab consistent.		Passes
3.4.C	ENS(X=4 or 16%) = 1.31652 in Table tab. Cost tab consistent.		Passes
3.5	ASN(5%) = 98.0976 no curtailing and ASN(5%) = 61.4476 curtailing on rejection both stages in Table tab. ASN tab consistent.		Passes

Table 3: (cont.)

ID	Results	Comments	Status
3.6.A	OC(1%) = 0.967341 in Table tab. OC tab consistent.		Passes
3.6.B	ASN(1%) = 21.6097 no curtailing in Table tab. ASN tab consistent.		Passes
3.6.C	AOQ(1%) = 0.967341% in Table tab. AOQ tab consistent.		Passes
3.6.D	OC(1.2666)=0.950001 in Table Tab and AQL=1.2666 in List window and Summary tab so consistent. OC(13.3)=0.100001 in Table Tab and LTPD=13.3 in List window and Summary tab so consistent.		Passes
3.6.E	AOQL = 2.9478 in List window and Summary tab and AOQ(5.6)=2.94781 which is maximum in Table tab.		Passes
3.6.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes

Table 4: Test Cases for Defective Units – ANSI Z1.4 Sampling Plans

ID	Results	Comments	Status
4.1.A	Letter Code = A in Z1.4 dialog box		Passes
4.1.B	n=1250, a=0 in Z1.4 dialog box		Passes
4.1.C	AQL = 0.0041034, LTPD = 0.18404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.1.D	$p_{0.99} = 0.00080402$, $p_{0.50} = 0.055436$, and $p_{0.01} = 0.36774$ in Percentiles tab.		Passes
4.1.E	AOQL = 0.029419 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.1.F	List window and all tabs agree exactly.		Passes
4.2.A	Letter Code = A in Z1.4 dialog box		Passes
4.2.B	Use corresponding single sampling plan n=1250, a=0 in Z1.4 dialog box		Passes
4.2.C	List windows and all tabs agree exactly.		Passes
4.3.A	Letter Code = A in Z1.4 dialog box		Passes
4.3.B	Use corresponding single sampling plan n=1250, a=0 in Z1.4 dialog box		Passes
4.3.C	List windows and all tabs agree exactly.		Passes
4.4.A	Letter Code = A in Z1.4 dialog box		Passes
4.4.B	n=2000, a=0 in Z1.4 dialog box		Passes
4.4.C	List windows and all tabs agree exactly.		Passes
4.5.A	Letter Code = A in Z1.4 dialog box		Passes
4.5.B	Use corresponding single sampling plan n=2000, a=0 in Z1.4 dialog box		Passes
4.5.C	List windows and all tabs agree exactly.		Passes
4.6.A	Letter Code = A in Z1.4 dialog box		Passes
4.6.B	Use corresponding single sampling plan n=2000, a=0 in Z1.4 dialog box		Passes
4.6.C	List windows and all tabs agree exactly.		Passes
4.7.A	Letter Code = A in Z1.4 dialog box		Passes
4.7.B	n=500, a=0 in Z1.4 dialog box		Passes
4.7.C	AQL = 0.010258, LTPD = 0.45946 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.7.D	$p_{0.99} = 0.00201$, $p_{0.50} = 0.13853$, and $p_{0.01} = 0.9168$ in Percentiles tab.		Passes
4.7.E	AOQL = 0.073502 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.7.F	List windows and all tabs agree exactly.		Passes
4.8.A	Letter Code = A in Z1.4 dialog box		Passes
4.8.B	Use corresponding single sampling plan n=500, a=0 in Z1.4 dialog box		Passes
4.8.C	List windows and all tabs agree exactly.		Passes
4.9.A	Letter Code = A in Z1.4 dialog box		Passes
4.9.B	Use corresponding single sampling plan n=500, a=0 in Z1.4 dialog box		Passes
4.9.C	List windows and all tabs agree exactly.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.10.A	Letter Code = A in Z1.4 dialog box		Passes
4.10.B	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 16 batches free of defects to switch to reduced in Z1.4 dialog box		Passes
4.10.C	AQL = 0.0057283, LTPD = 0.11506 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.10.D	$p_{0.99} = 0.0016642$, $p_{0.50} = 0.035895$, and $p_{0.01} = 0.22999$ in Percentiles tab.		Passes
4.10.E	AOQL = 0.01856 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.10.F	ASN(0.00167) = 604.86, ASN(0.00573) = 900.944, ASN(0.0358) = 1938.28, ASN(0.115) = 1999.98, ASN(0.231) = 2000 in Table window and consistent with ASN tab.		Passes
4.10.G	E #Stages = 1 in Cost and Table tabs.		Passes
4.10.H	Varying Protection in List window and Summary tab.		Passes
4.10.I	Min Pa(AQL) = 0.89175 in Summary window and $OC_{Tightened}(0.0057283) = 0.89175$ in Table window so match.		Passes
4.10.J	Max Pa(LTPD) = 0.56234 in Summary window and $OC_{Reduced}(0.11506) = 0.56235$ in Table window so match.		Passes
4.10.K	Rate AQL = 0% in Summary tab.		Passes
4.10.L	Rate LTPD = 30.785% in Summary tab.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.11.A	Letter Code = A in Z1.4 dialog box		Passes
4.11.B	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 10 batches free of defects to switch to reduced in Z1.4 dialog box		Passes
4.11.C	AQL = 0.0064383, LTPD = 0.11506 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.0064383 is more than 10% from the value given in ANSI Z1.4 of AQL = 0.00573. However, the value given by ANSI Z1.4 is based on the Poisson (defects per unit) rather than the Binomial (defective units) and assumes 16 acceptances to switch to reduced rather than 10. Simulation confirms OC(0.0064383) = 0.9500276 so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.11.D	$p_{0.99} = 0.0017672$, $p_{0.50} = 0.035953$, and $p_{0.01} = 0.22999$ in Percentiles tab.		Passes
4.11.E	AOQL = 0.018562 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.11.F	ASN(0.00167) = 565.129 OC(0.00167) = 0.990613 ASN(0.00573) = 761.243 OC(0.00573) = 0.957566 ASN(0.0358) = 1935.49 OC(0.0358) = 0.501684 ASN(0.115) = 1999.98 OC(0.115) = 0.10013 in Table tab. OC and ASN tabs consistent.		Passes
4.11.G	E #Stages = 1 in Table and Cost tabs.		Passes
4.11.H	Varying Protection in List window and Summary tab.		Passes
4.11.I	Min Pa(AQL) = 0.87918 in Summary tab and $OC_{\text{Tightened}}(0.0064383) = 0.879176$ in Table tab. Two agree.		Passes
4.11.J	Max Pa(LTPD) = 0.56234 in Summary Tab and $OC_{\text{Reduced}}(0.11506) = 0.56235$ in Table tab. Two agree.		Passes
4.11.K	Rate AQL = 0% in Summary tab.		Passes
4.11.L	Rate LTPD = 30.785% in Summary tab.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.12.A	Letter Code = A in Z1.4 dialog box		Passes
4.12.B	Normal: n=1250, a=0, Tightened: n=2000, a=0 in Z1.4 dialog box		Passes
4.12.C	AQL = 0.0039956, LTPD = 0.11506 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.0039956 is more than 10% from the value given in ANSI Z1.4 of AQL = 0.00573. However, the value given by ANSI Z1.4 is based on a reduced inspection. Simulation confirms $OC(0.0039956) = 0.950002$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.12.D	$p_{0.99} = 0.00080307$, $p_{0.50} = 0.035891$, and $p_{0.01} = 0.22999$ in Percentiles tab.	$p_{0.99} = 0.00080307$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} = 0.00167$. However, the value given by ANSI Z1.4 is based on a reduced inspection. Simulation confirms $OC(0.00080307) = 0.99000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.12.E	AOQL = 0.01856 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.12.F	ASN(0.00167) = 1256.31 OC(0.00167) = 0.979239 ASN(0.00573) = 1317.24 OC(0.00573) = 0.927367 ASN(0.0358) = 1938.48 OC(0.0358) = 0.500998 ASN(0.115) = 1999.98 OC(0.115) = 0.10013 in Table tab. OC and ASN tabs consistent.		Passes
4.12.G	E #Stages = 1 in Table and Cost tabs.		Passes
4.12.H	Varying Protection in List window and Summary tab.		Passes
4.12.I	Min Pa(AQL) = 0.9232 in Summary tab and $OC_{Tightened}(0.0039956) = 0.923196$ in Table tab. Two agree.		Passes
4.12.J	Max Pa(LTPD) = 0.23713 in Summary Tab and $OC_{Normal}(0.11506) = 0.237146$ in Table tab. Two agree.		Passes
4.12.K	Rate AQL = 0% in Summary tab.		Passes
4.12.L	Rate LTPD = 0% in Summary tab.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.13.A	Letter Code = L in Z1.4 dialog box		Passes
4.13.B	n=200, a=5 in Z1.4 dialog box		Passes
4.13.C	AQL = 1.3143, LTPD = 4.5875 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.13.D	$p_{0.99} = 0.89968$, $p_{0.50} = 2.8303$, and $p_{0.01} = 6.4216$ in Percentiles tab.		Passes
4.13.E	AOQL = 1.5867 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.13.F	List windows and all tabs agree exactly.		Passes
4.14.A	Letter Code = L in Z1.4 dialog box		Passes
4.14.B	n1=125, a1=2, r1=5, n2=125, a2=6 in Z1.4 dialog box		Passes
4.14.C	AQL = 1.3113, LTPD = 4.5642 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.14.D	$p_{0.99} = 0.90066$, $p_{0.50} = 2.784$, and $p_{0.01} = 6.588$ in Percentiles tab.		Passes
4.14.E	AOQL = 1.5667 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.14.F	List windows and all tabs agree exactly.		Passes
4.15.A	Letter Code = L in Z1.4 dialog box		Passes
4.15.B	n1=50, a1=#, r1=4, n2=50, a2=1, r2=5, n3=50, a3=2, r3=6, n4=50, a4=3, r4=7, n5=50, a5=5, r5=8, n6=50, a6=7, r6=9, n7=50, a7=9, r7=10 in Z1.4 dialog box		Passes
4.15.C	AQL = 1.4093, LTPD = 4.4774 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.15.D	$p_{0.99} = 0.99008$, $p_{0.50} = 2.8109$, and $p_{0.01} = 6.6332$ in Percentiles tab.	$p_{0.99} = 0.99008$ is slightly more than 10% from the value given in ANSI Z1.4 of $p_{0.99} \approx 0.893$. However, the value given by ANSI Z1.4 is based on the Poisson (defects per unit) rather than the Binomial (defective units) and the same value is used for single and double sampling plans. EXCEL calculation confirms $OC(0.99008) = 0.99000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.15.E	AOQL = 1.6207 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.15.F	List windows and all tabs agree exactly.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.16.A	Letter Code = L in Z1.4 dialog box		Passes
4.16.B	n=200, a=3 in Z1.4 dialog box		Passes
4.16.C	AQL = 0.68597, LTPD = 3.3097 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.16.D	$p_{0.99} = 0.41388$, $p_{0.50} = 1.8329$, and $p_{0.01} = 4.9348$ in Percentiles tab.		Passes
4.16.E	AOQL = 0.97134 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.16.F	List window and all tabs agree exactly.		Passes
4.17.A	Letter Code = L in Z1.4 dialog box		Passes
4.17.B	n1=125, a1=1, r1=4, n2=125, a2=4 in Z1.4 dialog box		Passes
4.17.C	AQL = 0.80328, LTPD = 3.4798 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.80328 is more than 10% from the value given in ANSI Z1.4 of $p_{0.95} \approx 0.683$. However, the value given by ANSI Z1.4 is based on the Poisson (defects per unit) rather than the Binomial (defective units) and the same value is used for single and multiple sampling plans. EXCEL calculation confirms $OC(0.80329) = 0.95000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.17.D	$p_{0.99} = 0.51126$, $p_{0.50} = 1.9662$, and $p_{0.01} = 5.3271$ in Percentiles tab.	$p_{0.99} = 0.51126$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} \approx 0.412$. However, the value given by ANSI Z1.4 is based on the Poisson (defects per unit) rather than the Binomial (defective units) and the same value is used for single and multiple sampling plans. EXCEL calculation confirms $OC(0.51126) = 0.99000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.17.E	AOQL = 1.0608 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.17.F	List window and all tabs agree exactly.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.18.A	Letter Code = L in Z1.4 dialog box		Passes
4.18.B	n1=50, a1=#, r1=3, n2=50, a2=0, r2=3, n3=50, a3=1, r3=4, n4=50, a4=2, r4=5, n5=50, a5=3, r5=6, n6=50, a6=4, r6=6, n7=50, a7=6, r7=7 in Z1.4 dialog box		Passes
4.18.C	AQL = 0.69939, LTPD = 3.2151 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.18.D	$p_{0.99} = 0.40386$, $p_{0.50} = 1.8163$, and $p_{0.01} = 4.9913$ in Percentiles tab.		Passes
4.18.E	AOQL = 0.97619 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.18.F	List windows and all tabs agree exactly.		Passes
4.19.A	Letter Code = L in Z1.4 dialog box		Passes
4.19.B	n=80, a=4		Passes
4.19.C	List windows and all tabs agree exactly.		Passes
4.20.A	Letter Code = L in Z1.4 dialog box		Passes
4.20.B	n1=50, a1=0, r1=4, n2=50, a2=5 in Z1.4 dialog box		Passes
4.20.C	List windows and all tabs agree exactly.		Passes
4.21.A	Letter Code = L in Z1.4 dialog box		Passes
4.21.B	n1=20, a1=#, r1=3, n2=20, a2=0, r2=4, n3=20, a3=0, r3=5, n4=20, a4=1, r4=6, n5=20, a5=2, r5=7, n6=20, a6=3, r6=7, n7=20, a7=7, r7=8 in Z1.4 dialog box		Passes
4.21.C	List windows and all tabs agree exactly.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.22.A	Letter Code = L in Z1.4 dialog box		Passes
4.22.B	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, Switch to reduced if 10 batches accepted with no more than 14 defectives in Z1.4 dialog box.		Passes
4.22.C	AQL = 1.2414, LTPD = 3.3098 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.22.D	$p_{0.99} = 0.98059$, $p_{0.50} = 1.9428$, and $p_{0.01} = 4.9348$ in Percentiles tab.		Passes
4.22.E	AOQL = 1.2608 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.22.F	ASN(0.941) = 144.194 OC(0.941) = 0.992742 ASN(1.23) = 195.267 OC(1.23) = 0.952748 ASN(1.95) = 200.0 OC(1.95) = 0.495484 ASN(3.34) = 200 OC(3.34) = 0.0961978 in Table tab. OC and ASN tabs consistent.		Passes
4.22.G	E #Stages = 1 in Table and Cost tabs.		Passes
4.22.H	Varying Protection in List window and Summary tab.		Passes
4.22.I	Min Pa(AQL) = 0.76195 in Summary tab and $OC_{Tightened}(1.2414) = 0.76194$ in Table tab. Two agree.		Passes
4.22.J	Max Pa(LTPD) = 0.87388 in Summary Tab and $OC_{Reduced}(3.3098) = 0.873876$ in Table tab. Two agree.		Passes
4.22.K	Rate AQL = 0% in Summary tab.		Passes
4.22.L	Rate LTPD = 33.72% in Summary tab.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.23.A	Letter Code = L in Z1.4 dialog box		Passes
4.23.B	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, Switch to reduced if 10 batches accepted.		Passes
4.23.C	AQL = 1.3415, LTPD = 3.3098 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.23.D	$p_{0.99} = 1.0668$, $p_{0.50} = 1.9539$, and $p_{0.01} = 4.9348$ in Percentiles tab.	$p_{0.99} = 1.0668$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} \approx 0.941$. However, the value given by ANSI Z1.4 is based on the Poisson (defects per unit) rather than the Binomial (defective units). Simulation confirms $OC(1.0668) = 0.990$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
4.23.E	AOQL = 1.3197 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.23.F	ASN(0.941) = 116.147 OC(0.941) = 0.995479 ASN(1.23) = 140.2 OC(1.23) = 0.97381 ASN(1.95) = 198.226 OC(1.95) = 0.502641 ASN(3.34) = 200 OC(3.34) = 0.0961978 in Table tab. OC and ASN tabs consistent.		Passes
4.23.G	E #Stages = 1 in Table and Cost tabs.		Passes
4.23.H	Varying Protection in List window and Summary tab.		Passes
4.23.I	Min Pa(AQL) = 0.7183 in Summary tab and $OC_{Tightened}(1.3415) = 0.718313$ in Table tab. Two agree.		Passes
4.23.J	Max Pa(LTPD) = 0.87388 in Summary Tab and $OC_{Reduced}(3.3098) = 0.873876$ in Table tab. Two agree.		Passes
4.23.K	Rate AQL = 0% in Summary tab.		Passes
4.23.L	Rate LTPD = 33.72% in Summary tab.		Passes

Table 4: (cont.)

ID	Results	Comments	Status
4.24.A	Letter Code = L in Z1.4 dialog box		Passes
4.24.B	Normal: n=200, a=5, Tightened: n=200, a=3 in Z1.4 dialog box		Passes
4.24.C	AQL = 1.2342, LTPD = 3.3098 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
4.24.D	$p_{0.99} = 0.89477$, $p_{0.50} = 1.9428$, and $p_{0.01} = 4.9348$ in Percentiles tab.		Passes
4.24.E	AOQL = 1.2605 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
4.24.F	ASN(0.941) = 200 OC(0.941) = 0.987297 ASN(1.23) = 200 OC(1.23) = 0.950937 ASN(1.95) = 200 OC(1.95) = 0.495484 ASN(3.34) = 200 OC(3.34) = 0.0961978 in Table tab. OC and ASN tabs consistent.		Passes
4.24.G	E #Stages = 1 in Table and Cost tabs.		Passes
4.24.H	Varying Protection in List window and Summary tab.		Passes
4.24.I	Min Pa(AQL) = 0.76503 in Summary tab and $OC_{\text{Tightened}}(1.2342) = 0.765016$ in Table tab. Two agree.		Passes
4.24.J	Max Pa(LTPD) = 0.348 in Summary Tab and $OC_{\text{Normal}}(3.3098) = 0.348001$ in Table tab. Two agree.		Passes
4.24.K	Rate AQL = 0% in Summary tab.		Passes
4.24.L	Rate LTPD = 0% in Summary tab.		Passes

Table 5: Test Cases for Defective Units – Variables Sampling Plans

ID	Results	Comments	Status
5.1.A	AQL = 0.056868, $p_{0.50} = 0.89942$, and LTPD = 4.3104 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.1.B	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.1.C	Protection constant in List window and Summary tab.		Passes
5.1.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.2.A	AQL = 0.055891, $p_{0.50} = 0.89023$, and LTPD = 4.2827 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.2.B	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.2.C	Protection constant in List window and Summary tab.		Passes
5.2.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.3.A	AQL = 0.056868, $p_{0.50} = 0.94253$, and LTPD = 4.5108 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.3.B	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.3.C	Protection varies in List window and Summary tab.		Passes
5.3.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.4.A	AQL = 0.055891, $p_{0.50} = 0.90268$, and LTPD = 4.3882 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.4.B	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.4.C	Protection varies in List window and Summary tab.		Passes
5.4.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes

Table 5: (cont.)

ID	Results	Comments	Status
5.5.A	AQL = 0.065809, $p_{0.50} = 0.84242$, and LTPD = 4.0126 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.5.B	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.5.C	Protection constant in List window and Summary tab.		Passes
5.5.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.6.A	AQL = 0.065979, $p_{0.50} = 0.84412$, and LTPD = 4.019 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.6.B	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.6.C	Protection constant in List window and Summary tab.		Passes
5.6.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.7.A	AQL = 0.065809, $p_{0.50} = 0.84242$, and LTPD = 4.0126 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.7.B	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.7.C	Protection constant in List window and Summary tab.		Passes
5.7.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes
5.8.A	AQL = 0.065979, $p_{0.50} = 0.84412$, and LTPD = 4.019 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
5.8.B	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
5.8.C	Protection constant in List window and Summary tab.		Passes
5.8.D	Min OC(AQL) = 0.95, Rate AQL = 100%, Max OC(LTPD) = 0.10, Rate LTPD = 100% in Summary tab.		Passes

Table 6: Test Cases for Defective Units – ANSI Z1.9 Sampling Plans

ID	Results	Comments	Status
6.1.A	Letter Code = G in Z1.9 dialog box.		Passes
6.1.B	n=15, k=2.42 in Z1.9 dialog box.		Passes
6.1.C	AQL = 0.056868, $p_{0.50} = 0.89942$, and LTPD = 4.3104 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.1.D	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.1.E	Protection constant in List window and Summary tab.		Passes
6.1.F	List window and all tabs agree exactly.		Passes
6.2.A	Letter Code = G in Z1.9 dialog box.		Passes
6.2.B	n=15, k=2.53 in Z1.9 dialog box.		Passes
6.2.C	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.2.D	Protection constant in List window and Summary tab.		Passes
6.2.E	List windows and all tabs agree exactly.		Passes
6.3.A	Letter Code = G in Z1.9 dialog box.		Passes
6.3.B	n=7, k=2.13 in Z1.9 dialog box.		Passes
6.3.C	ASN=7, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.3.D	Protection constant in List window and Summary tab.		Passes
6.3.E	List windows and all tabs agree exactly.		Passes
6.4.A	Letter Code = G in Z1.9 dialog box.		Passes
6.4.B	N: n=15, k=2.42, T: n=15, k=2.53 R: n=7, k=2.13 in Z1.9 dialog box.		Passes
6.4.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.4.D	ESN = 1 in Cost and Table tabs.		Passes
6.4.E	Protection varies in List window and Summary tab.		Passes
6.5.A	Letter Code = G in Z1.9 dialog box.		Passes
6.5.B	N: n=15, k=2.42, T: n=15, k=2.53 in Z1.9 dialog box.		Passes
6.5.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.5.D	ESN = 1 in Cost and Table tabs.		Passes
6.5.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.6.A	Letter Code = G in Z1.9 dialog box.		Passes
6.6.B	n=15, M=0.311 in Z1.9 dialog box.		Passes
6.6.C	AQL = 0.055891, $p_{0.50} = 0.89023$, and LTPD = 4.2827 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.6.D	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.6.E	Protection constant in List window and Summary tab.		Passes
6.6.F	List window and all tabs agree exactly.		Passes
6.7.A	Letter Code = G in Z1.9 dialog box.		Passes
6.7.B	n=15, M=0.186 in Z1.9 dialog box.		Passes
6.7.C	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.7.D	Protection constant in List window and Summary tab.		Passes
6.7.E	List windows and all tabs agree exactly.		Passes
6.8.A	Letter Code = G in Z1.9 dialog box.		Passes
6.8.B	n=7, M=0.087 in Z1.9 dialog box.		Passes
6.8.C	ASN=7, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.8.D	Protection constant in List window and Summary tab.		Passes
6.8.E	List windows and all tabs agree exactly.		Passes
6.9.A	Letter Code = G in Z1.9 dialog box.		Passes
6.9.B	N: n=15, M=0.311, T: n=15, M=0.186, R: n=7, M=0.087 in Z1.9 dialog box.		Passes
6.9.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.9.D	ESN = 1 in Cost and Table tabs.		Passes
6.9.E	Protection varies in List window and Summary tab.		Passes
6.10.A	Letter Code = G in Z1.9 dialog box.		Passes
6.10.B	N: n=15, M=0.311, T: n=15, M=0.186 in Z1.9 dialog box.		Passes
6.10.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.10.D	ESN = 1 in Cost and Table tabs.		Passes
6.10.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.11.A	Letter Code = G in Z1.9 dialog box.		Passes
6.11.B	n=15, M=0.311 in Z1.9 dialog box.		Passes
6.11.C	AQL = 0.055891, $p_{0.50}$ = 0.90268, and LTPD = 4.3882 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.11.D	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.11.E	Protection varies in List window and Summary tab.		Passes
6.11.F	List window and all tabs agree exactly.		Passes
6.12.A	Letter Code = G in Z1.9 dialog box.		Passes
6.12.B	n=15, M=0.186 in Z1.9 dialog box.		Passes
6.12.C	ASN=15, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.12.D	Protection varies in List window and Summary tab.		Passes
6.12.E	List windows and all tabs agree exactly.		Passes
6.13.A	Letter Code = G in Z1.9 dialog box.		Passes
6.13.B	n=7, M=0.087 in Z1.9 dialog box.		Passes
6.13.C	ASN=7, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.13.D	Protection varies in List window and Summary tab.		Passes
6.13.E	List windows and all tabs agree exactly.		Passes
6.14.A	Letter Code = G in Z1.9 dialog box.		Passes
6.14.B	N: n=15, M=0.311, T: n=15, M=0.186, R: n=7, M=0.087 in Z1.9 dialog box.		Passes
6.14.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.14.D	ESN = 1 in Cost and Table tabs.		Passes
6.14.E	Protection varies in List window and Summary tab.		Passes
6.15.A	Letter Code = G in Z1.9 dialog box.		Passes
6.15.B	N: n=15, M=0.311, T: n=15, M=0.186 in Z1.9 dialog box.		Passes
6.15.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.15.D	ESN = 1 in Cost and Table tabs.		Passes
6.15.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.16.A	Letter Code = G in Z1.9 dialog box.		Passes
6.16.B	n=4, k=2.39 in Z1.9 dialog box.		Passes
6.16.C	AQL = 0.065809, $p_{0.50} = 0.84242$, and LTPD = 4.0126 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.16.D	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.16.E	Protection constant in List window and Summary tab.		Passes
6.16.F	List window and all tabs agree exactly.		Passes
6.17.A	Letter Code = G in Z1.9 dialog box.		Passes
6.17.B	n=3, k=2.49 in Z1.9 dialog box.		Passes
6.17.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.17.D	Protection constant in List window and Summary tab.		Passes
6.17.E	List windows and all tabs agree exactly.		Passes
6.18.A	Letter Code = G in Z1.9 dialog box.		Passes
6.18.B	n=3, k=2.19 in Z1.9 dialog box.		Passes
6.18.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.18.D	Protection constant in List window and Summary tab.		Passes
6.18.E	List windows and all tabs agree exactly.		Passes
6.19.A	Letter Code = G in Z1.9 dialog box.		Passes
6.190.B	N: n=4, k=2.39, T: n=3, k=2.49, R: n=3, k=2.19 in Z1.9 dialog box.		Passes
6.19.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.19.D	ESN = 1 in Cost and Table tabs.		Passes
6.19.E	Protection varies in List window and Summary tab.		Passes
6.20.A	Letter Code = G in Z1.9 dialog box.		Passes
6.20.B	N: n=4, k=2.39, T: n=3, k=2.49 in Z1.9 dialog box.		Passes
6.20.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.20.D	ESN = 1 in Cost and Table tabs.		Passes
6.20.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.21.A	Letter Code = G in Z1.9 dialog box.		Passes
6.21.B	n=4, M=0.29, v=1.155 in Z1.9 dialog box.		Passes
6.21.C	AQL = 0.065979, $p_{0.50}$ = 0.84412, and LTPD = 4.019 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.21.D	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.21.E	Protection constant in List window and Summary tab.		Passes
6.21.F	List window and all tabs agree exactly.		Passes
6.22.A	Letter Code = G in Z1.9 dialog box.		Passes
6.22.B	n=3, M=0.114, v=1.225 in Z1.9 dialog box.		Passes
6.22.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.22.D	Protection constant in List window and Summary tab.		Passes
6.22.E	List windows and all tabs agree exactly.		Passes
6.23.A	Letter Code = G in Z1.9 dialog box.		Passes
6.23.B	n=3, M=0.369, v=1.225 in Z1.9 dialog box.		Passes
6.23.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.23.D	Protection constant in List window and Summary tab.		Passes
6.23.E	List windows and all tabs agree exactly.		Passes
6.24.A	Letter Code = G in Z1.9 dialog box.		Passes
6.24.B	N: n=4, M=0.29, v=1.155 T: n=3, M=0.114, v=1.225 R: n=3, M=0.369, v=1.225 in Z1.9 dialog box.		Passes
6.24.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.24.D	ESN = 1 in Cost and Table tabs.		Passes
6.24.E	Protection varies in List window and Summary tab.		Passes
6.25.A	Letter Code = G in Z1.9 dialog box.		Passes
6.25.B	N: n=4, M=0.29, v=1.155 T: n=3, M=0.114, v=1.225 in Z1.9 dialog box.		Passes
6.25.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.25.D	ESN = 1 in Cost and Table tabs.		Passes
6.25.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.26.A	Letter Code = G in Z1.9 dialog box.		Passes
6.26.B	n=4, M=0.29, v=1.155, MPSD=0.147 in Z1.9 dialog box.		Passes
6.26.C	AQL = 0.065979, $p_{0.50} = 0.84412$, and LTPD = 4.019 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.26.D	ASN=4, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.26.E	Protection varies in List window and Summary tab.		Passes
6.26.F	OC curves identical on OC and Table tabs.		Passes
6.27.A	Letter Code = G in Z1.9 dialog box.		Passes
6.27.B	n=3, M=0.114, v=1.225, MPSD=0.147 in Z1.9 dialog box.		Passes
6.27.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.27.D	Protection varies in List window and Summary tab.		Passes
6.27.E	OC curves identical on OC and Table tabs.		Passes
6.28.A	Letter Code = G in Z1.9 dialog box.		Passes
6.28.B	n=3, M=0.369, v=1.225, MPSD=0.147 in Z1.9 dialog box.		Passes
6.28.C	ASN=3, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.28.D	Protection varies in List window and Summary tab.		Passes
6.28.E	OC curves identical on OC and Table tabs.		Passes
6.29.A	Letter Code = G in Z1.9 dialog box.		Passes
6.29.B	N: n=4, M=0.29, v=1.155 T: n=3, M=0.114, v=1.225 R: n=3, M=0.369, v=1.225 MPSD=0.147 in Z1.9 dialog box.		Passes
6.29.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.29.D	ESN = 1 in Cost and Table tabs.		Passes
6.29.E	Protection varies in List window and Summary tab.		Passes
6.30.A	Letter Code = G in Z1.9 dialog box.		Passes
6.30.B	N: n=4, M=0.29, v=1.155 T: n=3, M=0.114, v=1.225 MPSD=0.147 in Z1.9 dialog box.		Passes
6.30.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.30.D	ESN = 1 in Cost and Table tabs.		Passes
6.30.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.31.A	Letter Code = P in Z1.9 dialog box.		Passes
6.31.B	n=200, k=1.08 in Z1.9 dialog box.		Passes
6.31.C	AQL = 11.022, $p_{0.50}$ = 14.041, and LTPD = 16.736 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.31.D	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.31.E	Protection constant in List window and Summary tab.		Passes
6.31.F	List window and all tabs agree exactly.		Passes
6.32.A	Letter Code = P in Z1.9 dialog box.		Passes
6.32.B	n=200, k=1.29 in Z1.9 dialog box.		Passes
6.32.C	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.32.D	Protection constant in List window and Summary tab.		Passes
6.32.E	List windows and all tabs agree exactly.		Passes
6.33.A	Letter Code = P in Z1.9 dialog box.		Passes
6.33.B	n=75, k=0.806 in Z1.9 dialog box.		Passes
6.33.C	ASN=75, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.33.D	Protection constant in List window and Summary tab.		Passes
6.33.E	List windows and all tabs agree exactly.		Passes
6.34.A	Letter Code = P in Z1.9 dialog box.		Passes
6.34.B	N: n=200, k=1.08, T: n=200, k=1.29, R: n=75, k=0.806 in Z1.9 dialog box.		Passes
6.34.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.34.D	ESN = 1 in Cost and Table tabs.		Passes
6.34.E	Protection varies in List window and Summary tab.		Passes
6.35.A	Letter Code = P in Z1.9 dialog box.		Passes
6.35.B	N: n=200, k=1.08, T: n=200, k=1.29 in Z1.9 dialog box.		Passes
6.35.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.35.D	ESN = 1 in Cost and Table tabs.		Passes
6.35.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.36.A	Letter Code = P in Z1.9 dialog box.		Passes
6.36.B	n=200, M=14.11 in Z1.9 dialog box.		Passes
6.36.C	AQL = 11.117, $p_{0.50} = 14.148$, and LTPD = 16.852 in List window and in Summary and Percentile tabs. OC and Table tabs consistent		Passes
6.36.D	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.36.E	Protection constant in List window and Summary tab.		Passes
6.36.F	List window and all tabs agree exactly.		Passes
6.37.A	Letter Code = P in Z1.9 dialog box.		Passes
6.37.B	n=200, M=9.80 in Z1.9 dialog box.		Passes
6.37.C	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.37.D	Protection constant in List window and Summary tab.		Passes
6.37.E	List windows and all tabs agree exactly.		Passes
6.38.A	Letter Code = P in Z1.9 dialog box.		Passes
6.38.B	n=75, M=21.05 in Z1.9 dialog box.		Passes
6.38.C	ASN=75, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.38.D	Protection constant in List window and Summary tab.		Passes
6.38.E	List windows and all tabs agree exactly.		Passes
6.39.A	Letter Code = P in Z1.9 dialog box.		Passes
6.39.B	N: n=200, M=14.11, T: n=200, M=9.80, R: n=75, M=21.05 in Z1.9 dialog box.		Passes
6.39.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.39.D	ESN = 1 in Cost and Table tabs.		Passes
6.39.E	Protection varies in List window and Summary tab.		Passes
6.40.A	Letter Code = P in Z1.9 dialog box.		Passes
6.40.B	N: n=200, M=14.11, T: n=200, M=9.80 in Z1.9 dialog box.		Passes
6.40.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.40.D	ESN = 1 in Cost and Table tabs.		Passes
6.40.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.41.A	Letter Code = P in Z1.9 dialog box.		Passes
6.41.B	n=200, M=14.11 in Z1.9 dialog box.		Passes
6.41.C	AQL = 11.116, $p_{0.50}$ = 14.148, and LTPD = 16.852 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.41.D	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.41.E	Protection varies in List window and Summary tab.		Passes
6.41.F	List window and all tabs agree exactly.		Passes
6.42.A	Letter Code = P in Z1.9 dialog box.		Passes
6.42.B	n=200, M=9.80 in Z1.9 dialog box.		Passes
6.42.C	ASN=200, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.42.D	Protection varies in List window and Summary tab.		Passes
6.42.E	List windows and all tabs agree exactly.		Passes
6.43.A	Letter Code = P in Z1.9 dialog box.		Passes
6.43.B	n=75, M=21.05 in Z1.9 dialog box.		Passes
6.43.C	ASN=75, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.43.D	Protection varies in List window and Summary tab.		Passes
6.43.E	List windows and all tabs agree exactly.		Passes
6.44.A	Letter Code = P in Z1.9 dialog box.		Passes
6.44.B	N: n=200, M=14.11, T: n=200, M=9.80, R: n=75, M=21.05 in Z1.9 dialog box.		Passes
6.44.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.44.D	ESN = 1 in Cost and Table tabs.		Passes
6.44.E	Protection varies in List window and Summary tab.		Passes
6.45.A	Letter Code = P in Z1.9 dialog box.		Passes
6.45.B	N: n=200, M=14.11, T: n=200, M=9.80 in Z1.9 dialog box.		Passes
6.45.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.45.D	ESN = 1 in Cost and Table tabs.		Passes
6.45.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.46.A	Letter Code = P in Z1.9 dialog box.		Passes
6.46.B	n=127, k=1.07 in Z1.9 dialog box.		Passes
6.46.C	AQL = 11.2, $p_{0.50}$ = 14.231, and LTPD = 16.947 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.46.D	ASN=127, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.46.E	Protection constant in List window and Summary tab.		Passes
6.46.F	List window and all tabs agree exactly.		Passes
6.47.A	Letter Code = P in Z1.9 dialog box.		Passes
6.47.B	n=109, k=1.29 in Z1.9 dialog box.		Passes
6.47.C	ASN=109, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.47.D	Protection constant in List window and Summary tab.		Passes
6.47.E	List windows and all tabs agree exactly.		Passes
6.48.A	Letter Code = P in Z1.9 dialog box.		Passes
6.48.B	n=56, k=0.803 in Z1.9 dialog box.		Passes
6.48.C	ASN=56, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.48.D	Protection constant in List window and Summary tab.		Passes
6.48.E	List windows and all tabs agree exactly.		Passes
6.49.A	Letter Code = P in Z1.9 dialog box.		Passes
6.490.B	N: n=127, k=1.07, T: n=109, k=1.29, R: n=56, k=0.803		Passes
6.49.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.49.D	ESN = 1 in Cost and Table tabs.		Passes
6.49.E	Protection varies in List window and Summary tab.		Passes
6.50.A	Letter Code = P in Z1.9 dialog box.		Passes
6.50.B	N: n=127, k=1.07, T: n=109, k=1.29 in Z1.9 dialog box.		Passes
6.50.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.50.D	ESN = 1 in Cost and Table tabs.		Passes
6.50.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.51.A	Letter Code = P in Z1.9 dialog box.		Passes
6.51.B	n=127, M=14.02, v=1.004 in Z1.9 dialog box.		Passes
6.51.C	AQL = 11.102, $p_{0.50}$ = 14.115, and LTPD = 16.816 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.51.D	ASN=127, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.51.E	Protection constant in List window and Summary tab.		Passes
6.51.F	List window and all tabs agree exactly.		Passes
6.52.A	Letter Code = P in Z1.9 dialog box.		Passes
6.52.B	n=109, M=9.73, v=1.005 in Z1.9 dialog box.		Passes
6.52.C	ASN=109, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.52.D	Protection constant in List window and Summary tab.		Passes
6.52.E	List windows and all tabs agree exactly.		Passes
6.53.A	Letter Code = P in Z1.9 dialog box.		Passes
6.53.B	n=56, M=20.90, v=1.009 in Z1.9 dialog box.		Passes
6.53.C	ASN=56, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.53.D	Protection constant in List window and Summary tab.		Passes
6.53.E	List windows and all tabs agree exactly.		Passes
6.54.A	Letter Code = P in Z1.9 dialog box.		Passes
6.54.B	N: n=127, M=14.02, v=1.004 T: n=109, M=9.73, v=1.005 R: n=56, M=20.90, v=1.009 in Z1.9 dialog box.		Passes
6.54.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.54.D	ESN = 1 in Cost and Table tabs.		Passes
6.54.E	Protection varies in List window and Summary tab.		Passes
6.55.A	Letter Code = P in Z1.9 dialog box.		Passes
6.55.B	N: n=127, M=14.02, v=1.004 T: n=109, M=9.73, v=1.005 in Z1.9 dialog box.		Passes
6.55.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.55.D	ESN = 1 in Cost and Table tabs.		Passes
6.55.E	Protection varies in List window and Summary tab.		Passes

Table 6: (cont.)

ID	Results	Comments	Status
6.56.A	Letter Code = P in Z1.9 dialog box.		Passes
6.56.B	n=127, M=14.02, v=1.004, MPSD=0.271 in Z1.9 dialog box.		Passes
6.56.C	AQL = 11.102, $p_{0.50}$ = 13.656, and LTPD = 16.816 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
6.56.D	ASN=127, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.56.E	Protection varies in List window and Summary tab.		Passes
6.56.F	OC curves identical on OC and Table tabs.		Passes
6.57.A	Letter Code = P in Z1.9 dialog box.		Passes
6.57.B	n=109, M=9.73, v=1.005, MPSD=0.271 in Z1.9 dialog box.		Passes
6.57.C	ASN=109, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.57.D	Protection varies in List window and Summary tab.		Passes
6.57.E	OC curves identical on OC and Table tabs.		Passes
6.58.A	Letter Code = P in Z1.9 dialog box.		Passes
6.58.B	n=56, M=20.90, v=1.009, MPSD=0.271 in Z1.9 dialog box.		Passes
6.58.C	ASN=56, ESN = 1 in ASN, Cost and Table tabs.		Passes
6.58.D	Protection varies in List window and Summary tab.		Passes
6.58.E	OC curves identical on OC and Table tabs.		Passes
6.59.A	Letter Code = P		Passes
6.59.B	N: n=127, M=14.02, v=1.004, T: n=109, M=9.73, v=1.005, R: n=56, M=20.90, v=1.009, MPSD=0.271 in Z1.9 dialog box.		Passes
6.59.C	OC, ASN curves bounded by three curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.59.D	ESN = 1 in Cost and Table tabs.		Passes
6.59.E	Protection varies in List window and Summary tab.		Passes
6.60.A	Letter Code = P in Z1.9 dialog box.		Passes
6.60.B	N: n=127, M=14.02, v=1.004, T: n=109, M=9.73, v=1.005, MPSD=0.271 in Z1.9 dialog box.		Passes
6.60.C	OC, ASN curves bounded by two curves, starting closest to reduced and ending closest to tightened in OC and ASN tabs.		Passes
6.60.D	ESN = 1 in Cost and Table tabs.		Passes
6.60.E	Protection varies in List window and Summary tab.		Passes

Table 7: Test Cases for Defects Per Unit – Single Sampling Plans

ID	Results	Comments	Status
7.1.A	AQL = 0.39456, LTPD = 17.712 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
7.1.B	$p_{0.99} = 0.07731$, $p_{0.50} = 5.3319$, and $p_{0.01} = 35.424$ in Percentiles tab.		Passes
7.1.C	AOQL = 2.8298 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
7.1.D	ASN = 13 in ASN and Table tabs.		Passes
7.1.E	E #Stages = 1 in Cost and Table tabs.		Passes
7.1.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
7.2.A	AQL = 0.74469, LTPD = 1.4092 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
7.2.B	$p_{0.99} = 0.6287$, $p_{0.50} = 1.0834$, and $p_{0.01} = 1.7177$ in Percentiles tab.		Passes
7.2.C	AOQL = 0.73286 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
7.2.D	ASN = 2000 in ASN and Table tabs.		Passes
7.2.E	E #Stages = 1 in Cost and Table tabs.		Passes
7.2.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
7.3	OC(5) = 0.91854, OC(10) = 0.736099, OC(20) = 0.391747, OC(30) = 0.183695 in Table tab. OC tab consistent.		Passes
7.4	ASN (0.395) = 12.6719, ASN (17.7) = 5.08385 in Table tab. ASN tab consistent.		Passes

Table 8: Test Cases for Defects Per Unit – Double Sampling Plans

ID	Results	Comments	Status
8.1	OC(3%) = 0.855835 ASN(3%) = 16.4327 ENS(3%) = 1.26405 in Table tab.		Passes
8.2	OC(3%) = 0.872067 ASN(3%) = 16.8375 ENS(3%) = 1.29519 in Table tab.		Passes

Table 9: Test Cases for Defects Per Unit – Multiple Sampling Plans

ID	Results	Comments	Status
9.1	List Window and all Tabs indetical		Passes
9.2	List Window and all Tabs indetical		Passes
9.3	List Window and all Tabs indetical		Passes
9.4	List Window and all Tabs indetical		Passes

Table 10: Test Cases for Defective Units – ANSI Z1.4 Sampling Plans

ID	Results	Comments	Status
10.1.A	Letter Code = A in Z1.4 dialog box.		Passes
10.1.B	n=1250, a=0 in Z1.4 dialog box.		Passes
10.1.C	AQL = 0.0041034, LTPD = 0.18404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.1.D	$p_{0.99} = 0.00080402$, $p_{0.50} = 0.055452$, and $p_{0.01} = 0.36841$ in Percentiles tab.		Passes
10.1.E	AOQL = 0.02943 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.1.F	List window and all tabs agree exactly.		Passes
10.2.A	Letter Code = A in Z1.4 dialog box.		Passes
10.2.B	Use corresponding single sampling plan n=1250, a=0 in Z1.4 dialog box.		Passes
10.2.C	List windows and all tabs agree exactly.		Passes
10.3.A	Letter Code = A in Z1.4 dialog box.		Passes
10.3.B	Use corresponding single sampling plan n=1250, a=0 in Z1.4 dialog box.		Passes
10.3.C	List windows and all tabs agree exactly.		Passes
10.4.A	Letter Code = A in Z1.4 dialog box.		Passes
10.4.B	n=2000, a=0 in Z1.4 dialog box.		Passes
10.4.C	List windows and all tabs agree exactly.		Passes
10.5.A	Letter Code = A in Z1.4 dialog box.		Passes
10.5.B	Use corresponding single sampling plan n=2000, a=0 in Z1.4 dialog box.		Passes
10.5.C	List windows and all tabs agree exactly.		Passes
10.6.A	Letter Code = A in Z1.4 dialog box.		Passes
10.6.B	Use corresponding single sampling plan n=2000, a=0 in Z1.4 dialog box.		Passes
10.6.C	List windows and all tabs agree exactly.		Passes
10.7.A	Letter Code = A in Z1.4 dialog box.		Passes
10.7.B	n=500, a=0 in Z1.4 dialog box.		Passes
10.7.C	AQL = 0.010259, LTPD = 0.46052 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.7.D	$p_{0.99} = 0.0020101$, $p_{0.50} = 0.13863$, and $p_{0.01} = 0.92103$ in Percentiles tab.		Passes
10.7.E	AOQL = 0.073576 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.7.F	List windows and all tabs agree exactly.		Passes
10.8.A	Letter Code = A in Z1.4 dialog box.		Passes
10.8.B	Use corresponding single sampling plan n=500, a=0 in Z1.4 dialog box.		Passes
10.8.C	List windows and all tabs agree exactly.		Passes
10.9.A	Letter Code = A in Z1.4 dialog box.		Passes
10.9.B	Use corresponding single sampling plan n=500, a=0 in Z1.4 dialog box.		Passes
10.9.C	List windows and all tabs agree exactly.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.10.A	Letter Code = A in Z1.4 dialog box.		Passes
10.10.B	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 16 batches free of defects to switch to reduced in Z1.4 dialog box.		Passes
10.10.C	AQL = 0.0057285, LTPD = 0.11513 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.10.D	$p_{0.99} = 0.0016642$, $p_{0.50} = 0.035901$, and $p_{0.01} = 0.23026$ in Percentiles tab.		Passes
10.10.E	AOQL = 0.018564 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.10.F	ASN(0.00167) = 604.86, ASN(0.00573) = 900.931, ASN(0.0358) = 1938.24, ASN(0.115) = 1999.98, ASN(0.231) = 2000 in Table window and consistent with ASN tab.		Passes
10.10.G	E #Stages = 1 in Cost and Table tabs.		Passes
10.10.H	Varying Protection in List window and Summary tab.		Passes
10.10.I	Min Pa(AQL) = 0.89175 in Summary window and $OC_{\text{Tightened}}(0.0057285) = 0.89175$ in Table window so match.		Passes
10.10.J	Max Pa(LTPD) = 0.56234 in Summary window and $OC_{\text{Reduced}}(0.11513) = 0.562349$ in Table window so match.		Passes
10.10.K	Rate AQL = 0% in Summary tab.		Passes
10.10.L	Rate LTPD = 30.785% in Summary tab.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.11.A	Letter Code = A in Z1.4 dialog box.		Passes
10.11.B	Normal: n=1250, a=0, Tightened: n=2000, a=0, Reduced: n=500, a=0 10 batches free of defects to switch to reduced in Z1.4 dialog box.		Passes
10.11.C	AQL = 0.0064385, LTPD = 0.11513 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.0064385 is more than 10% from the value given in ANSI Z1.4 of AQL = 0.00573. However, the value given by ANSI Z1 assumes 16 acceptances to switch to reduced rather than 10. Simulation confirms OC(0.0064385) = 0.949968 so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.11.D	$p_{0.99} = 0.0017672$, $p_{0.50} = 0.035959$, and $p_{0.01} = 0.23026$ in Percentiles tab.		Passes
10.11.E	AOQL = 0.018567 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.11.F	ASN(0.00167) = 565.129 OC(0.00167) = 0.990613 ASN(0.00573) = 761.233 OC(0.00573) = 0.957568 ASN(0.0358) = 1935.45 OC(0.0358) = 0.501754 ASN(0.115) = 1999.98 OC(0.115) = 0.100262 OC and ASN tabs consistent.		Passes
10.11.G	E #Stages = 1 in Table and Cost tabs.		Passes
10.11.H	Varying Protection in List window and Summary tab.		Passes
10.11.I	Min Pa(AQL) = 0.87918 in Summary tab and $OC_{Tightened}(0.0064385) = 0.879176$ in Table tab. Two agree.		Passes
10.11.J	Max Pa(LTPD) = 0.56234 in Summary Tab and $OC_{Reduced}(0.11513) = 0.562339$ in Table tab. Two agree.		Passes
10.11.K	Rate AQL = 0% in Summary tab.		Passes
10.11.L	Rate LTPD = 30.785% in Summary tab.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.12.A	Letter Code = A in Z1.4 dialog box.		Passes
10.12.B	Normal: n=1250, a=0, Tightened: n=2000, a=0		Passes
10.12.C	AQL = 0.0039957, LTPD = 0.11513 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.0039957 is more than 10% from the value given in ANSI Z1.4 of AQL = 0.00573. However, the value given by ANSI Z1.4 is based on a reduced inspection. Simulation confirms $OC(0.0039957) = 0.950003$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.12.D	$p_{0.99} = 0.00080307$, $p_{0.50} = 0.035897$, and $p_{0.01} = 0.23026$ in Percentiles tab.	$p_{0.99} = 0.00080307$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} = 0.00167$. However, the value given by ANSI Z1.4 is based on a reduced inspection. Simulation confirms $OC(0.00080307) = 0.99000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.12.E	AOQL = 0.018564 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.12.F	ASN(0.00167) = 1256.3 OC(0.00167) = 0.979239 ASN(0.00573) = 1317.24 OC(0.00573) = 0.927369 ASN(0.0358) = 1938.448 OC(0.0358) = 0.501058 ASN(0.115) = 1999.98 OC(0.115) = 0.100262 OC and ASN tabs consistent.		Passes
10.12.G	E #Stages = 1 in Table and Cost tabs.		Passes
10.12.H	Varying Protection in List window and Summary tab.		Passes
10.12.I	Min Pa(AQL) = 0.9232 in Summary tab and $OC_{Tightened}(0.0039957) = 0.923196$ in Table tab. Two agree.		Passes
10.12.J	Max Pa(LTPD) = 0.23713 in Summary Tab and $OC_{Normal}(0.11513) = 0.237135$ in Table tab. Two agree.		Passes
10.12.K	Rate AQL = 0% in Summary tab.		Passes
10.12.L	Rate LTPD = 0% in Summary tab.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.13.A	Letter Code = L in Z1.4 dialog box.		Passes
10.13.B	n=200, a=5 in Z1.4 dialog box.		Passes
10.13.C	AQL = 1.3063, LTPD = 4.6371 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.13.D	$p_{0.99} = 0.8925$, $p_{0.50} = 2.835$, and $p_{0.01} = 6.5537$ in Percentiles tab.		Passes
10.13.E	AOQL = 1.5841 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.13.F	List windows and all tabs agree exactly.		Passes
10.14.A	Letter Code = L in Z1.4 dialog box.		Passes
10.14.B	n1=125, a1=2, r1=5, n2=125, a2=6 in Z1.4 dialog box.		Passes
10.14.C	AQL = 1.3037, LTPD = 4.6245 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.14.D	$p_{0.99} = 0.89303$, $p_{0.50} = 2.7919$, and $p_{0.01} = 6.8299$ in Percentiles tab.		Passes
10.14.E	AOQL = 1.5653 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.14.F	List windows and all tabs agree exactly.		Passes
10.15.A	Letter Code = L in Z1.4 dialog box.		Passes
10.15.B	n1=50, a1=#, r1=4, n2=50, a2=1, r2=5, n3=50, a3=2, r3=6, n4=50, a4=3, r4=7, n5=50, a5=5, r5=8, n6=50, a6=7, r6=9, n7=50, a7=9, r7=10 in Z1.4 dialog box.		Passes
10.15.C	AQL = 1.3996, LTPD = 4.5402 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.15.D	$p_{0.99} = 0.97962$, $p_{0.50} = 2.8191$, and $p_{0.01} = 6.8218$ in Percentiles tab.		Passes
10.15.E	AOQL = 1.6181 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.15.F	List windows and all tabs agree exactly.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.16.A	Letter Code = L in Z1.4 dialog box.		Passes
10.16.B	n=200, a=3 in Z1.4 dialog box.		Passes
10.16.C	AQL = 0.68316, LTPD = 3.3404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.16.D	$p_{0.99} = 0.41162$, $p_{0.50} = 1.836$, and $p_{0.01} = 5.0226$ in Percentiles tab.		Passes
10.16.E	AOQL = 0.97119 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.16.F	List window and all tabs agree exactly.		Passes
10.17.A	Letter Code = L in Z1.4 dialog box.		Passes
10.17.B	n1=125, a1=1, r1=4, n2=125, a2=4 in Z1.4 dialog box.		Passes
10.17.C	AQL = 0.80019, LTPD = 3.5188 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.	AQL = 0.80019 is more than 10% from the value given in ANSI Z1.4 of $p_{0.95} \approx 0.683$. However, the value given by ANSI Z1.4 is for the single sampling plan to which the double sampling plan is matched. EXCEL calculation confirms $OC(0.80019) = 0.95000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.17.D	$p_{0.99} = 0.50836$, $p_{0.50} = 1.9716$, and $p_{0.01} = 5.4468$ in Percentiles tab.	$p_{0.99} = 0.50836$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} \approx 0.412$. However, the value given by ANSI Z1.4 is for the single sampling plan which the double sampling plan is matched. EXCEL calculation confirms $OC(0.50836) = 0.99000$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.17.E	AOQL = 1.0612 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.17.F	List window and all tabs agree exactly.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.18.A	Letter Code = L in Z1.4 dialog box.		Passes
10.18.B	n1=50, a1=#, r1=3, n2=50, a2=0, r2=3, n3=50, a3=1, r3=4, n4=50, a4=2, r4=5, n5=50, a5=3, r5=6, n6=50, a6=4, r6=6, n7=50, a7=6, r7=7 in Z1.4 dialog box.		Passes
10.18.C	AQL = 0.69574, LTPD = 3.2519 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.18.D	$p_{0.99} = 0.40085$, $p_{0.50} = 1.8206$, and $p_{0.01} = 5.1068$ in Percentiles tab.		Passes
10.18.E	AOQL = 0.9761 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.18.F	List windows and all tabs agree exactly.		Passes
10.19.A	Letter Code = L in Z1.4 dialog box.		Passes
10.19.B	n=80, a=4 in Z1.4 dialog box.		Passes
10.19.C	List windows and all tabs agree exactly.		Passes
10.20.A	Letter Code = L in Z1.4 dialog box.		Passes
10.20.B	n1=50, a1=0, r1=4, n2=50, a2=5		Passes
10.20.C	List windows and all tabs agree exactly.		Passes
10.21.A	Letter Code = L in Z1.4 dialog box.		Passes
10.21.B	n1=20, a1=#, r1=3, n2=20, a2=0, r2=4, n3=20, a3=0, r3=5, n4=20, a4=1, r4=6, n5=20, a5=2, r5=7, n6=20, a6=3, r6=7, n7=20, a7=7, r7=8 in Z1.4 dialog box.		Passes
10.21.C	List windows and all tabs agree exactly.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.22.A	Letter Code = L in Z14 dialog box.		Passes
10.22.B	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, Switch to reduced if 10 batches accepted with no more than 14 defectives in Z1.4 dialog box.		Passes
10.22.C	AQL = 1.2353, LTPD = 3.3404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.22.D	$p_{0.99} = 0.97509$, $p_{0.50} = 1.9452$, and $p_{0.01} = 5.0226$ in Percentiles tab.		Passes
10.22.E	AOQL = 1.2568 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.22.F	ASN(0.941) = 144.715 OC(0.941) = 0.992396 ASN(1.23) = 195.252 OC(1.23) = 0.951305 ASN(1.95) = 200.0 OC(1.95) = 0.497009 ASN(3.34) = 200 OC(3.34) = 0.100056 OC and ASN tabs consistent.		Passes
10.22.G	E #Stages = 1 in Table and Cost tabs.		Passes
10.22.H	Varying Protection in List window and Summary tab.		Passes
10.22.I	Min Pa(AQL) = 0.76383 in Summary tab and $OC_{Tightened}(1.2353) = 0.763842$ in Table tab. Two agree.		Passes
10.22.J	Max Pa(LTPD) = 0.86698 in Summary Tab and $OC_{Reduced}(3.3404) = 0.866984$ in Table tab. Two agree.		Passes
10.22.K	Rate AQL = 0% in Summary tab.		Passes
10.22.L	Rate LTPD = 34.122% in Summary tab.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.23.A	Letter Code = L in Z1.4 dialog box.		Passes
10.23.B	Normal: n=200, a=5, Tightened: n=200, a=3, Reduced: n=80, a=4 Switch to normal if 3 or more defects, Switch to reduced if 10 batches accepted in Z1.4 dialog box.		Passes
10.23.C	AQL = 1.3349, LTPD = 3.3404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.23.D	$p_{0.99} = 1.0584$, $p_{0.50} = 1.956$, and $p_{0.01} = 5.0226$ in Percentiles tab.	$p_{0.99} = 1.0584$ is more than 10% from the value given in ANSI Z1.4 of $p_{0.99} \approx 0.941$. However, the value given by ANSI Z1.4 is based on use of the switching rules. Simulation confirms $OC(1.0584) = 0.989996$ so displayed value is correct.	Outside 10% rule for approx. Passed based on further analysis
10.23.E	AOQL = 1.3151 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.23.F	ASN(0.941)=116.712 OC(0.941) = 0.995217 ASN(1.23) = 140.913 OC(1.23) = 0.972648 ASN(1.95) = 198.254 OC(1.95) = 0.504013 ASN(3.34) = 200 OC(3.34) = 0.100056 OC and ASN tabs consistent.		Passes
10.23.G	E #Stages = 1 in Table and Cost tabs.		Passes
10.23.H	Varying Protection in List window and Summary tab.		Passes
10.23.I	Min Pa(AQL) = 0.72073 in Summary tab and $OC_{Tightened}(1.3349) = 0.720739$ in Table tab. Two agree.		Passes
10.23.J	Max Pa(LTPD) = 0.86698 in Summary Tab and $OC_{Reduced}(3.3404) = 0.866984$ in Table tab. Two agree.		Passes
10.23.K	Rate AQL = 0% in Summary tab.		Passes
10.23.L	Rate LTPD = 34.112% in Summary tab.		Passes

Table 10: (cont.)

ID	Results	Comments	Status
10.24.A	Letter Code = L in Z1.4 dialog box.		Passes
10.24.B	Normal: n=200, a=5, Tightened: n=200, a=3 in Z1.4 dialog box.		Passes
10.24.C	AQL = 1.2275, LTPD = 3.3404 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
10.24.D	$p_{0.99} = 0.88769$, $p_{0.50} = 1.9428$, and $p_{0.01} = 4.9348$ in Percentiles tab.		Passes
10.24.E	AOQL = 1.2564 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
10.24.F	ASN(0.941) = 200 OC(0.941) = 0.986827 ASN(1.23) = 200 OC(1.23) = 0.94944 ASN(1.95) = 200 OC(1.95) = 0.497009 ASN(3.34) = 200 OC(3.34) = 0.100056 OC and ASN tabs consistent.		Passes
10.24.G	E #Stages = 1 in Table and Cost tabs.		
10.24.H	Varying Protection in List window and Summary tab.		Passes
10.24.I	Min Pa(AQL) = 0.76714 in Summary tab and $OC_{\text{Tightened}}(1.2275) = 0.767151$ in Table tab. Two agree.		Passes
10.24.J	Max Pa(LTPD) = 0.34327 in Summary Tab and $OC_{\text{Normal}}(3.3404) = 0.34328$ in Table tab. Two agree.		Passes
10.24.K	Rate AQL = 0% in Summary tab.		Passes
10.24.L	Rate LTPD = 0% in Summary tab.		Passes

Table 11: Test Cases for Defects Per Quantity – Single Sampling Plans

ID	Results	Comments	Status
11.1.A	AQL = 0.0039456, LTPD = 0.17712 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
11.1.B	$p_{0.99} = 0.0007731$, $p_{0.50} = 0.053319$, and $p_{0.01} = 0.35424$ in Percentiles tab.		Passes
11.1.C	AOQL = 0.028298 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
11.1.D	ASN = 13 in ASN and Table tabs.		Passes
11.1.E	E #Stages = 1 in Cost and Table tabs.		Passes
11.1.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
11.2.A	AQL = 0.0074468, LTPD = 0.014092 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
11.2.B	$p_{0.99} = 0.006287$, $p_{0.50} = 0.010834$, and $p_{0.01} = 0.017177$ in Percentiles tab.		Passes
11.2.C	AOQL = 0.0073286 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
11.2.D	ASN = 2000 in ASN and Table tabs.		Passes
11.2.E	E #Stages = 1 in Cost and Table tabs.		Passes
11.2.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
11.3.A	AQL = 0.39456, LTPD = 17.712 in List window and in Summary and Percentile tabs. OC and Table tabs consistent.		Passes
11.3.B	$p_{0.99} = 0.07731$, $p_{0.50} = 5.3319$, and $p_{0.01} = 35.424$ in Percentiles tab.		Passes
11.3.C	AOQL = 2.8298 in List window and in Summary tab. AOQ and Table tabs consistent.		Passes
11.3.D	ASN = 0.13 in ASN and Table tabs.		Passes
11.3.E	E #Stages = 1 in Cost and Table tabs.		Passes
11.3.F	Constant Protection, Min Pa(AQL) = 0.95, Rate AQL = 100%, Max Pa(LTPD) = 0.10, and Rate LTPD = 100% in List window and Summary tab.		Passes
11.4	OC(0.05) = 0.91854, OC(0.1) = 0.736099, OC(0.2) = 0.391747, OC(0.3) = 0.183695 in Table tab. OC tab consistent.		Passes
11.5	ASN (0.00395) = 12.6719, ASN (0.177) = 5.08385 in Table tab. ASN tab consistent.		Passes

Table 12 Test Cases for Defects Per Quantity – Double Sampling Plans

ID	Results	Comments	Status
12.1	OC(0.03) = 0.855835 ASN(0.03) = 16.4327 ENS(0.03) = 1.26405 in Table tab.		Passes
12.2	OC(0.03) = 0.872067 ASN(0.03) = 16.8375 ENS(0.03) = 1.29519 in Table tab.		Passes
12.3	OC(3) = 0.855835 ASN(3) = 0.164327 ENS(3) = 1.26405 in Table tab.		Passes
12.4	OC(3) = 0.872067 ASN(3) = 0.168375 ENS(3) = 1.29519 in Table tab.		Passes

Table 13 Test Cases for Defects Per Quantity – Multiple Sampling Plans

ID	Results	Comments	Status
13.1	List window and all tabs match.		Passes
13.2	List window and all tabs match.		Passes
13.3	List window and all tabs match.		Passes
13.4	List window and all tabs match.		Passes
13.5	List window and all tabs match.		Passes
13.6	List window and all tabs match.		Passes
13.7	List window and all tabs match.		Passes
13.8	List window and all tabs match.		Passes

Table 14: Test Cases for Selection for Defective Units

ID	Results	Comments	Status
14.1	n=1, a=0 in List window		Passes
14.2	n=22, a=0 with LTPD = 9.9372 in List window		Passes
14.3	n=1, a=0 with AQL = 5 in List window		Passes
14.4	n=52, a=2 with AQL = 1.5908 and LTPD = 9.9126 in List window		Passes
14.5	n=6, a=0 with AQL = 0.85125 in List window		Passes
14.6	n=22, a=0 with AQL = 0.23288 and LTPD = 9.9372 in List window		Passes
14.7	n=69, a=2 with AQL = 1.1954 and LTPD = 7.5297 in List window		Passes
14.8	Message box displaying message to use single sampling plan		Passes
14.9	Message box displaying message to use single sampling plan		Passes
14.10	Message box displaying message to use single sampling plan		Passes
14.11	n1=24, a1=0, r1=2, n2=39, a2=2 with AQL = 1.1911 and LTPD = 9.948 in List window		Passes
14.12	Message box displaying message to use single sampling plan		Passes
14.13	Message box displaying message to use single sampling plan		Passes
14.14	n1=23, a1=0, r1=2, n2=55, a2=2 with AQL = 1.0935 and LTPD = 9.7588 in List window		Passes

Table 14: (cont.)

ID	Results	Comments	Status
14.15	n=1, k=0 with AQL = 5 and LTPD = 90 in List window		Passes
14.16	n=1, k=0.6814 with AQL = 1.0003 and LTPD = 72.58 in List window		Passes
14.17	n=1, k=2.5631 with AQL = 0.0012885 and LTPD = 10 in List window		Passes
14.18	n=8, k=1.7448 with AQL = 1 and LTPD = 9.823 in List window		Passes
14.19	Message box that AQL below minimum possible for Cp=1		Passes
14.20	n=1, k=0.6726 with AQL = 1.0003 and LTPD = 72.872 in List window		Passes
14.21	Message box that AQL below minimum possible for Cp=1		Passes
14.22	n=8, k=1.7493 with AQL = 1.0002 and LTPD = 9.7454 in List window		Passes
14.23	n=2, k=0 with AQL = 12.24 and LTPD = 81.758 in List window		Passes
14.24	n=2, k=0.9538 with AQL = 1 and LTPD = 64.567 in List window		Passes
14.25	n=2, k=10.2527 with AQL = 1.5596 10 ⁻⁸⁸ and LTPD = 10 in List window		Passes
14.26	n=21, k=01.7607 with AQL = 1.0003 and LTPD = 9.8488 in List window		Passes
14.27	n=2, k=0 with AQL = 12.24 and LTPD = 92.92 in List window		Passes
14.28	n=2, k=0.7486 with AQL = 1.0002 and LTPD = 67.708 in List window		Passes
14.29	n=2, k=10.2527 with AQL = 1.9494 10 ⁻¹¹⁹ and LTPD = 10 in List window		Passes
14.30	n=23, k=1.7818 with AQL = 1.0002 and LTPD = 9.7603 in List window		Passes

Table 15: Test Cases for Selection for Defects Per Unit

ID	Results	Comments	Status
15.1	n=1, a=0 with LTPD = 230.26 in List window		Passes
15.2	n=24, a=0 with LTPD = 9.5941 in List window		Passes
15.3	n=1, a=1 with AQL = 35.536 and LTPD = 388.97 in List window		Passes
15.4	n=54, a=2 with AQL = 1.5142 and LTPD = 9.8562 in List window		Passes
15.5	n=6, a=0 with AQL = 0.85489 and LTPD = 38.376 in List window		Passes
15.6	n=24, a=0 with AQL = 0.21372 and LTPD = 9.5941 in List window		Passes
15.7	n=69, a=2 with AQL = 1.1851 and LTPD = 7.7135 in List window		Passes
15.8	Message box displaying message to use single sampling plan		Passes
15.9	Message box displaying message to use single sampling plan		Passes
15.10	Message box displaying message to use single sampling plan		Passes
15.11	n1=25, a1=0, r1=2, n2=41, a2=2 with AQL = 1.1298 and LTPD = 9.9803 in List window		Passed
15.12	Message box displaying message to use single sampling plan		Passes
15.13	Message box displaying message to use single sampling plan		Passes
15.14	n1=24, a1=0, r1=2, n2=50, a2=2 with AQL = 1.0924 and LTPD = 9.982 in List window		Passes

Table 16: Test Cases for Selection for Defects Per Quantity

ID	Results	Comments	Status
16.1	n=0.001, a=0 with LTPD = 2302.6 in List window		Passes
16.2	n=0.231, a=0 with LTPD = 9.9679 in List window		Passes
16.3	n=0.001, a=1 with AQL = 355.36 and LTPD = 3889.7 in List window		Passes
16.4	n=0.533, a=2 with AQL = 1.5341 and LTPD = 9.9856 in List window		Passes
16.5	n=0.052, a=0 with AQL = 0.98641 and LTPD = 44.28 in List window		Passes
16.6	n=0.231, a=0 with AQL = 0.22205 and LTPD = 9.9679 in List window		Passes
16.7	n=0.682, a=2 with AQL = 1.119 and LTPD = 7.805 in List window		Passes
16.8	Message box displaying message to use single sampling plan		Passes
16.9	Message box displaying message to use single sampling plan		Passes
16.10	Message box displaying message to use single sampling plan		Passes
16.11	n1=0.3, a1=0, r1=2, n2=1.262, a2=4 with AQL = 1.0422 and LTPD = 9.9999 in List window		Passed
16.12	Message box displaying message to use single sampling plan		Passes
16.13	Message box displaying message to use single sampling plan		Passes
16.14	n1=0.3, a1=0, r1=2, n2=1.262, a2=4 with AQL = 1.0422 and LTPD = 9.9999 in List window		Passes