Appendix C. Model Inspection Report Forms

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Date:	**Random Package Report**		Sampling Plan: ☐ A ☐ B	Report Number:
Location (name, address):	Product/Brand Identity: Lot Codes:		Manufacturer:	Container Description:

1. Labeled Quantity: (Enter weight for each package in Column 1 below.)	2. Unit of Measure:	3. MAV: (Look up the MAV for each package with a minus error (−), convert it to dimensionless units and enter this value in the Box 4 column below.)	5. Inspection Lot Size:	6. Sample Size (n):
7. Initial Tare Sample Size:	8. Number of MAVs Allowed:	9. Range of Package Errors (Rc):	10. Range of Tare Weights (Rt):	11. Rc/Rt : (Box 9 ÷ Box 10 =)	12. Total No. of Tare Samples:

13. Avg. Tare Wt: ☐ Used Dry Tare ☐ Wet Tare ☐ Unused Dry Tare	13a. ☐ Tare Correction ☐ Moisture Allowance ☐ Not Applicable	14. Nominal Gross Wt: (Labeled Wt + Box 13 − Box 13a =)

	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
a. Gross Wt										
b. Tare Wt										
c. Net Wt										
d. Package Error										

Product Description, Lot Code, Unit Price	Money Errors		Column 1 Labeled Net Weight	Package Errors		4. MAV Dimensionless Units
	−	+		−	+	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
			Totals			

15. Total Error:	16. Number of unreasonable minus (−) errors: (Compare each package error with the MAV in Column 4.)	17. Is Box 16 greater than Box 8? ☐ Yes, lot fails ☐ No, go to Box 18	18. Avg. error in dimensionless units: (Box 15 ÷ Box 6 =)	19. Avg. error in labeled units: (Box 18 × Box 2 =)

20. Does Box 18 = zero (0) or Plus (+)? ☐ Yes, lot passes, go to Box 25 ☐ No, go to Box 21	21. Compute Sample Standard Deviation:	22. Sample Correction Factor:	23. Compute Sample Error Limit: (Box 21 × Box 22 =)

24. Disregarding the signs, is Box 18 larger than Box 23? ☐ Yes, lot fails, go to Box 25 ☐ No, lot passes, go to Box 25	25. Disposition of Inspection Lot: ☐ Approved ☐ Rejected
Comments:	Official's Signature: Acknowledgement of Report:

Date: *January 20, 2010*	**Random Package Report – Example**			**Sampling Plan:** ☑ **A** ☐ **B**	**Report Number:** 17
Location (name, address): *L&O Market MacCorkle Ave. Charleston, WV 25171*	**Product/Brand Identity:** *Ground Chuck* **Lot Codes:** *1, 19, 99*			**Manufacturer:** *Meat Dept. – L&O Market*	**Container Description:** *2S Tray w/soaker and plastic wrap*
1. Labeled Quantity: (Enter weight for each package in Column 1 below.)	**2. Unit of Measure:** *0.001 lb*	**3. MAV:** (Look up the MAV for each package with a minus error (−), convert it to dimensionless units and enter this value in the Box 4 column below.)		**5. Inspection Lot Size:** *23*	**6. Sample Size (n):** *12*
7. Initial Tare Sample Size: *2*	**8. Number of MAVs Allowed:** *0*	**9. Range of Package Errors (Rc):** *10*	**10. Range of Tare Weights (Rt):** *1*	**11. Rc/Rt:** (Box 9 ÷ Box 10 =) *10*	**12. Total No. of Tare Samples**: *2*
13. Avg. Tare Wt: *0.020 lb* ☑ **Used Dry Tare** ☐ **Wet Tare** ☐ **Unused Dry Tare**			**13a.** ☐ **Tare Correction** ☐ **Moisture Allowance** ☑ **Not Applicable**		**14. Nominal Gross Wt:** (Labeled Wt + Box 13 − Box 13a =) *Label Wt + 0.020 lb*

	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
a. Gross Wt	*1.852 lb*	*1.223 lb*								
b. Tare Wt	*0.020 lb*	*0.021 lb*								
c. Net Wt	*1.832 lb*	*1.202 lb*								
d. Package Error	*− 18*	*− 8*								

Product Description – **Lot Code** – **Unit Price**	**Money Errors**		**Column 1 Labeled Net Weight**	**Package Errors**		**4. MAV Dimensionless Units**
	−	+		−	+	
1. *Ground Chuck – 1, 19, 99 – $1.79 per lb*			*1.85 lb*	*18*		
2.			*1.21 lb*	*7*		
3.			*1.56 lb*	*8*		
4.			*1.98 lb*	*14*		
5.	*$ 0.04*		*1.07 lb*	*23*		*44*
6.			*1.55 lb*	*16*		
7.			*1.02 lb*	*2*		
8.	*$ 0.04*		*1.44 lb*	*25*		*56*
9.			*1.33 lb*	*16*		
10.			*2.03 lb*	*20*		*70*
11.			*1.73 lb*	*14*		
12.			*1.16 lb*	*11*		
13.						
14.						
15.						
16.						
			Totals	*− 174*		

15. Total Error: *− 174*	**16. Number of unreasonable minus (−) errors**: (Compare each package error with the MAV in Column 4.) *0*	**17. Is Box 16 greater than Box 8?** ☐ **Yes,** lot fails ☑ **No,** go to Box 18	**18. Avg. error in dimensionless units:** (Box 15 ÷ Box 6 =) *− 14.5*	**19. Avg. error in labeled units:** (Box 18 × Box 2 =) *− 0.014 lb*

20. Does Box 18 = Zero (0) or Plus (+)? ☐ **Yes,** lot passes, go to Box 25 ☑ **No,** go to Box 21	**21. Compute Sample Standard Deviation:** *6.721*	**22. Sample Correction Factor:** *0.635*	**23. Compute Sample Error Limit:** (Box 21 × Box 22 =) *4.267*

24. Disregarding the signs, is Box 18 larger than Box 23? ☑ **Yes**, lot fails, go to Box 25 ☐ **No**, lot passes, go to Box 25	**25. Disposition of Inspection Lot:** ☐ **Approved** ☑ **Rejected**
Comments	**Official's Signature:** **Acknowledgement of Report:**

Date:	**Standard Package Report**	Sampling Plan: ☐ A ☐ B	Report Number:

Location (name, address):	Product/Brand Identity: Lot Codes:	Manufacturer:	Container Description:

1. Labeled Quantity:	2. Unit of Measure:	3. MAV:	4. MAV (dimensionless units): (Box 3 ÷ Box 2 =)	5. Inspection Lot Size:	6. Sample Size (n):
7. Initial Tare Sample Size:	8. Number of MAVs Allowed:	9. Range of Package Errors (Rc):	10. Range of Tare Weights (Rt):	11. Rc/Rt: (Box 9 ÷ 10 =)	12. Total Number of Tare Samples:

13. Average Tare Wt: ☐ Used Dry Tare ☐ Wet Tare ☐ Unused Dry Tare	13a. ☐ Tare Correction ☐ Moisture Allowance ☐ Vacuum Pack ☐ Not Applicable	14. Nominal Gross Wt: (Box 1 + Box 13 − Box 13a =)

	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
a. Gross Wt										
b. Tare Wt										
c. Net Wt										
d. Package Error										

−	+	−	+	−	+	−	+
1.		13.		25.		37.	
2.		14.		26.		38.	
3.		15.		27.		39.	
4.		16.		28.		40.	
5.		17.		29.		41.	
6.		18.		30.		42.	
7.		19.		31.		43.	
8.		20.		32.		44.	
9.		21.		33.		45.	
10.		22.		34.		46.	
11.		23.		35.		47.	
12.		24.		36.		48.	
Total:	**Total:**	**Total:**	**Total:**	**Total:**	**Total:**	**Total:**	**Total:**

15. Total Error:	16. Number of unreasonable minus (−) errors (compare each package error with Box 4):	17. Is Box 16 greater than Box 8? ☐ Yes, lot fails ☐ No, go to Box 18	18. Average error in dimensionless units: (Box 15 ÷ Box 6 =)	19. Average error in labeled units: (Box 18 × Box 2 =)

20. Does Box 18 = Zero (0) or Plus (+)? ☐ Yes, lot passes, go to Box 25 ☐ No, go to Box 21	21. Compute Sample Standard Deviation:	22. Sample Correction Factor:	23. Compute Sample Error Limit: (Box 21 × Box 22 =)

24. Disregarding the signs, is Box 18 larger than Box 23? ☐ Yes, lot fails, go to Box 25 ☐ No, lot passes, go to Box 25	25. Disposition of Inspection Lot: ☐ Approved ☐ Rejected

Comments:	Official's Signature: Acknowledgement of Report:

Date: *January 20, 2010*	**Standard Package Report – Example**	**Sampling Plan:** ☑ A ☐ B	**Report Number:** *16*

Location (name, address):	**Product/Brand Identity:**	**Manufacturer:**	**Container Description:**
Volunteer Market *18765 Alcoa Highway* *Knoxville, TN 37920*	*Community Group Cookies (Thin Mints)* **Lot Codes:** *April 2009 A & B*	*ABC Cookies Inc.* *1069 Capitol Avenue* *Nashville, TN 37204*	*Cardboard Box/ Plastic Liner*

1. Labeled Quantity:	2. Unit of Measure:	3. MAV:	4. MAV (dimensionless units): (Box 3 ÷ Box 2 =)	5. Inspection Lot Size:	6. Sample Size (n):
453 g (1 lb)	*0.001 lb*	*0.044 lb*	*44*	*172*	*12*

7. Initial Tare Sample Size:	8. Number of MAVs Allowed:	9. Range of Package Errors (Rc):	10. Range of Tare Weights (Rt):	11. Rc/Rt: (Box 9 ÷ 10 =)	12. Total Number of Tare Samples:
2	*0*	*24*	*2*	*12*	*2*

13. Average Tare Wt:	13a.	14. Nominal Gross Wt:
0.014 lb ☑ Used Dry Tare ☐ Wet Tare ☐ Unused Dry Tare	☐ Tare Correction ☐ Moisture Allowance ☐ Vacuum Pack ☑ Not Applicable	(Box 1 + Box13 − Box 13a =) *1.014 lb*

	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
a. Gross Wt	*1.052 lb*	*1.026 lb*								
b. Tare Wt	*0.015 lb*	*0.013 lb*								
c. Net Wt	*1.037 lb*	*1.013 lb*								
d. Package Error	*37*	*13*								

−	+	−	+	−	+	−	+
1.	*38*	13.		25.		37.	
2.	*12*	14.		26.		38.	
3.	*8*	15.		27.		39.	
4.	*4*	16.		28.		40.	
5. *3*		17.		29.		41.	
6. *2*		18.		30.		42.	
7.	*12*	19.		31.		43.	
8. *3*		20.		32.		44.	
9.	*4*	21.		33.		45.	
10. *1*		22.		34.		46.	
11. *0*		23.		35.		47.	
12.	*6*	24.		36.		48.	
Total: *9*	**Total:** *84*	**Total:**	**Total:**	**Total:**	**Total:**	**Total:**	**Total:**

15. Total Error:	16. Number of unreasonable minus (−) errors (compare each package error with Box 4):	17. Is Box 16 greater than Box 8?	18. Average error in dimensionless units: (Box 15 ÷ Box 6 =)	19. Average error in labeled units: (Box 18 × Box 2 =)
+ 75	*0*	☐ Yes, lot fails ☑ No, go to Box 18	*+ 6.25*	*+ 0.006 lb*

20. Does Box 18 = Zero (0) or Plus (+)?	21. Compute Sample Standard Deviation:	22. Sample Correction Factor:	23. Compute Sample Error Limit: (Box 21 × Box 22 =)
☑ Yes, lot passes, go to Box 25 ☐ No, go to Box 21			

24. Disregarding the signs, is Box 18 larger than Box 23?	25. Disposition of Inspection Lot:
☐ Yes, lot fails, go to Box 25 ☐ No, lot passes, go to Box 25	☑ Approved ☐ Rejected

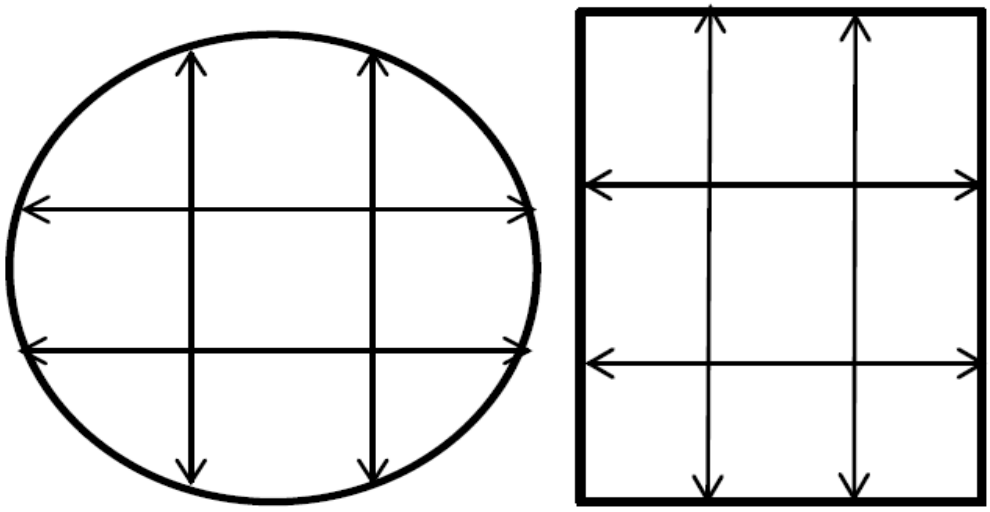
Comments:	Official's Signature:
Lot Passes	Acknowledgement of Report:

Date:	**Standard Package Report – Animal Bedding**		**Sampling Plan A** – Table 2-1., Appendix A. in NIST Handbook 133		**Report Number:**
Location (name, address):		**Product/Brand Identity:** **Lot Codes:**	**Manufacturer:**		**Container Description:**
1. Labeled Quantity (Usable Volume):	**2. Unit of Measure:**	**3. MAV:** (5 % of labeled quantity)	**4. MAV:** (0.05 × Box 1. Usable Volume)	**5. Inspection Lot Size:**	**6. Sample Size (n):** **7. Number of Unreasonable Package Errors Allowed for Sample Size:**

Gross Weight for Audit Testing		**Package Error**		**Test Notes**
		–	**+**	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		Total:	Total:	

8. Total Error:	**9. Number of unreasonable minus (−) errors (compare each package error with Box 4):**	**10. Is Box 9 greater than Box 7?** ☐ **Yes,** lot fails go to Box 17 ☐ **No,** go to Box 11.	**11. Calculate Average Error**: (Box 8 ÷ Box 6 =)
12. Does Box 11 = Zero (0) or Plus (+)? ☐ **Yes,** lot passes, go to Box 17 ☐ **No,** go to Box 13, 14, 15 & 16	**13. Compute Sample Standard Deviation:**	**14. Sample Correction Factor:**	**15. Compute Sample Error Limit (SEL):** (Box 13 × Box 14 =)
16. Disregarding the signs, is Box 11 larger than Box 15? ☐ **Yes,** lot fails, go to Box 17 ☐ **No,** lot passes, go to Box 17		**17. Disposition of Inspection Lot:** ☐ **Approve** ☐ **Reject**	
Comments:		**Official's Signature:** **Acknowledgement of Report:**	

Measurement Grid and Package Error Worksheet
for Cylindrical and Square or Rectangular Test Measures



Complete this for Cylindrical Test Measures

Sample Package _____ Labeled Expanded Volume (L): _____

A. Interior Height of Test Measure: _____ B. Radius of Test Measure (r): _____

C. Average Depth (Sum of Measurements ÷ 9): _____

D. Average Height of Product (= A − C): _____

E. Volume (L): _____ = 3.141 592 65 × r^2 (B^2): _____ × D: _____ ÷ 1 000 000

F. Package Error (L): _____ = Labeled Volume (L): _____ − E (L): _____

Volume is calculated using: *Volume in liters = $\pi r^2 h$ For example: if r^2 is 23035 and height of product is 109.26 then* ((Pi) 3.141 592 65 × r^2 (23 035) × 109.26) ÷ 1 000 000 = 7.90 L

Complete this for Square or Rectangular Test Measures

Sample Package _____ Labeled Expanded Volume (L): _____

A. Interior Height of Test Measure: _____ B. Area of Test Measure Base (L × W): _____

C. Average Depth (Sum of Measurements ÷ 9): _____

D. Average Height of Product (= A − C): _____

E. Volume (L): _____ = B. Area of Test Measure Base: _____ × D: _____ ÷ 1 000 000

F. Package Error (L): _____ = Labeled Volume (L): _____ − E (L): _____

Volume is calculated using: *Volume in liters = (lw)h For example: If length and width are 609.6 the area of the measure's base is 371 612. If the Average Height of the Product is 109.26 then:*

* Area of Test Measure Base (371 612) × Average Height of Bedding (109.26) ÷ 1 000 000 = 40.6 L

(Added 2016)

Ice Glazed Package Worksheet

STEP

1. Package Price (if standard pack) $ _____ Price Per Pound (if random pack) $ _____

   Lot Size: _____ Sample Size: _____ Unit of Measure: _____
2. Number each package. Weigh each package for the Gross Package Weight and enter in Row 1.
3. Enter Labeled Net Weight in Row 2. (If dual units determine the larger unit.) _____
4. Record the Maximum Allowable Variation (MAV) in Row 3.
5. Weigh the receiving pan = _____ (enter in Row 4). (Clean and dry the receiving pan and verify the weight after each use. Thoroughly clean the sieve.)
6. Deglaze the product. Remove each package from the low temperature storage. Open the package immediately and place the contents in the sieve or other draining device (e.g., colander) under a gentle spray of cold water. Carefully agitate the product. Handle with care to avoid breaking the product. Continue the spraying process until all the ice glaze that is seen or felt is removed.
7. Without shifting the product, incline the sieve to an angle of 17° to 20° (incline to facilitate drainage) and drain for two minutes using a stopwatch.
8. Immediate transfer the entire product to the receiving pan to determine the net weight.
9. To calculate the net weight (receiving pan and product) – (receiving pan) = Net Weight (enter in Row 5)
10. Calculate ± Package error (net weight [Row 5] – labeled net weight [Row 2]) = ± Error, (enter in Row 6).

Row	Package	1	2	3	4	5	6	7	8	9	10	11	12
1	Gross Pkg. Weight (Step 2)												
2	Labeled Net Weight (Step 3)												
3	MAV (Step 4)												
4	Receiving Pan Weight (Step 5)												
5	Net Weight (Step 9)												
6	± Error (Step 10)												

Used Dry Tare _____

Transfer data from the "Ice Glazed Package Worksheet" to the "Ice Glazed Package Report"

(Added 2010)

Ice Glazed Package Worksheet – Example

STEP

1. Package Price (if standard pack) $ *6.99* Price Per Pound (if random pack) $ _____

   Lot Size: *6* Sample Size: *6* Unit of Measure: *0.001 lb*

2. Number each package. Weigh each package for the Gross Package Weight and enter Row 1.
3. Enter Labeled Net Weight in Row 2. (If dual units determine the larger unit.) *1 lb/453 g*
4. Record the Maximum Allowable Variation (MAV) in Row 3.
5. Weigh the receiving pan = *0.795 lb* (enter in Row 4). (Clean and dry the receiving pan and verify the weight after each use. Thoroughly clean the sieve.)
6. Deglaze the product. Remove each package from the low temperature storage. Open the package immediately and place the contents in the sieve or other draining device (e.g., colander) under a gentle spray of cold water. Carefully agitate the product. Handle the product with care to avoid breaking the product. Continue the spraying process until all the ice glaze that is seen or felt is removed.
7. Without shifting the product, incline the sieve to an angle of 17° to 20° (incline to facilitate drainage) and drain for two minutes using a stopwatch.
8. Immediately transfer the entire product to the receiving pan to determine the net weight.
9. To calculate the net weight (receiving pan and product) – (receiving pan) = Net Weight (enter in Row 5)
10. Calculate ± Package error (net weight [Row 5] – labeled net weight [Row 2]) = ± Error, (enter in Row 6).

Row	Package	1	2	3	4	5	6	7	8	9	10	11	12
1	Gross Pkg. Weight (Step 2)	*1.180*	*1.205*	*1.110*	*1.150*	*1.000*	*1.210*						
2	Labeled Net Weight (Step 3)	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*						
3	MAV (Step 4)	*0.044*	*0.044*	*0.044*	*0.044*	*0.044*	*0.044*						
4	Receiving Pan Weight (Step 5)	*0.795*	*0.795*	*0.795*	*0.795*	*0.795*	*0.795*						
5	Net Weight (Step 9)	*0.985*	*0.975*	*1.000*	*1.030*	*0.930*	*0.980*						
6	± Error (Step10)	*− 0.015*	*− 0.025*	*0*	*+ 0.030*	*− 0.070*	*− 0.020*						

Used Dry Tare *0.025 lb*

Transfer data from the "Ice Glazed Package Worksheet" to the "Ice Glazed Package Report"

(Added 2010)

Date:	**Ice Glazed Package Report**	Sampling Plan: ☐ A ☐ B	Report Number:
Location (name, address):	Product/Brand Identity: Lot Codes:	Manufacturer:	Container Description:

1. Standard Pack Labeled Quantity: (If random packed, enter weight for each package in Column 1 below.)	2. Unit of Measure:	3. MAV: Look up the MAV for each package with a minus (−) error, enter value in the Box 4 column below.	5. Inspection Lot Size:	6. Sample Size (n):

7. Price per lb:

7a. Standard Pack: Package Price _____ divide by (Box 1) = _____

7b. Random Pack: Labeled Price per lb _____

8. No. of MAVs Allowed:

	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10	Pkg 11	Pkg 12
Pkg. Gross Wt												
a. Labeled Net Wt												
b. Gross: Rec. Pan & deglazed product Wt												
c. Tare: Rec. Pan Wt												
d. Net Wt : (Box b − Box c =)												
e. Package Error: (Box d − Box a =)												

Package #	Column 1 Labeled Net Weight (random pack only)	Package Errors		4. MAV Dimensionless Units
		−	+	
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
Totals		**f.**	**g.**	

9. Total Error: (add Row e or Box f + g)	10. Number of Unreasonable Minus (−) Errors: (compare each package error with the MAV in the Box 4 column)	11. Is Box 10 greater than Box 8? ☐ **Yes,** lot fails ☐ **No,** go to Box 12	12. Avg. Error: (Box 9 ÷ Box 6 =)

13. Does Box 12 = Zero (0) or Plus (+)? ☐ **Yes,** lot passes, go to Box 18 ☐ **No,** go to Box 14	14. Compute Sample Standard Deviation:	15. Sample Correction Factor:	16. Compute Sample Error Limit: (Box 14 × Box 15 =)

17. Disregarding the signs, is Box 12 larger than Box 16? ☐ Yes, lot fails, go to Box 18 ☐ No, lot passes, go to Box 18	18. Disposition of Inspection Lot: ☐ **Approved** ☐ **Rejected**	19. Economic Impact: (Box 12 × Box 7 × Box 5 =)

Comments:	Official's Signature: Acknowledgement of Report:

Date: *January 20, 2010*	**Ice Glazed Package Report – Example**	**Sampling Plan:** ☑ A ☐ B	**Report Number:** *103*

Location (name, address):	**Product/Brand Identity:**	**Manufacturer:**	**Container Description:**
Ocean Fresh Market *101 8th Street* *Key West, FL*	*Raw/Peeled Shrimp 71 – 90 Count* Lot Codes:	*Ocean Fresh*	*Plastic*

1. Standard Pack Labeled Quantity: *453 g (1 lb)* (If random packed, enter weight for each package in Column 1 below.)	**2. Unit of Measure:** *0.001 lb*	**3. MAV:** Look up the MAV for each package with a minus (−) error, enter value in the Box 4 column below. *0.044 lb*	**5. Inspection Lot Size:** *6*	**6. Sample Size (n):** *6*

7. Price per lb:

7a. Standard Pack: Package Price $ *6.99* **divide by (Box 1) =** $ *6.99*

7b. Random Pack: Labeled Price per lb _____

8. No. of MAVs Allowed *0*

	Pkg 1	**Pkg 2**	**Pkg 3**	**Pkg 4**	**Pkg 5**	**Pkg 6**	**Pkg 7**	**Pkg 8**	**Pkg 9**	**Pkg 10**	**Pkg 11**	**Pkg 12**
Pkg. Gross Wt	*1.180*	*1.205*	*1.100*	*1.150*	*1.000*	*1.210*						
a. Labeled Net Wt	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*						
b. Gross: Rec. Pan & deglazed product Wt												
c. Tare: Rec. Pan Wt	*0.795*	*0.795*	*0.795*	*0.795*	*0.795*	*0.795*						
d. Net Wt (Box b − Box c=)	*0.985*	*0.975*	*1.000*	*1.030*	*0.930*	*0.980*						
e. Package Error (Box d − Box a =)	*− 0.015*	*− 0.025*	*0*	*+ 0.030*	*− 0.070*	*− 0.020*						

Package #	**Column 1 Labeled Net Weight** (random pack only)	**Package Errors** −	**Package Errors** +	**4. MAV Dimensionless Units**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
Totals		**f.**	**g.**	

9. Total Error: (add Row e or Box f + g)	**a. Number of Unreasonable Minus (−) Errors:** (compare each package error with the MAV in the Box 4 column)	**11. Is Box 10 greater than Box 8?**	**12. Avg. error:** (Box 9 ÷ Box 6 =)
− 0.100	*1*	☑ **Yes**, lot fails ☐ **No,** go to Box 12	*− 0.016*

13. Does Box 12 = Zero (0) or Plus (+)?	**14. Compute Sample Standard Deviation:**	**15. Sample Correction Factor:**	**16. Compute Sample Error Limit:** (Box 14 × Box 15 =)
☐ **Yes,** lot passes, go to Box 18 ☐ **No,** go to Box 14			

17. Disregarding the signs, is Box 12 larger than Box 16?	**18. Disposition of Inspection Lot:**	**19. Economic Impact:**
☐ **Yes,** lot fails, go to Box 18 ☐ **No,** lot passes, go to Box 18	☐ **Approved** ☑ **Rejected**	(Box 12 × Box 7 × Box 5 =) *− 0.016 × $6.99 × 6 = $0.67*

Comments:	**Official's Signature:**
Product found to contain less than the stated net contents. Failed due to MAV.	**Acknowledgement of Report:**

Date:	**Determining the Free Liquid and Net Volume of Oysters Worksheet**			Report Number:
Location (name, address):	Product/Brand Identity: Lot Codes:	Manufacturer:		Container Description:
1. Labeled Quantity:	2. Unit of Measure:	3. Inspection Lot Size:	4. Sample Size:	

Amount of Free Liquid Values

Steps:	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
1. Weight of Dry Receiving Pan										
2. Gross Weight of Package										
Reference Temperature of Oysters 7 °C (± 1) [45 °F (± 2)]										
3. Tare Weight of Package										
4. Net Weight of Oysters & Liquid (Step 2 – Step 3 =)										
5. Weight of Receiving Pan and Drained Liquid										
6. Weight of Free Liquid (Step 5 – Step 1 =)										
7. Percentage (%) of Free Liquid (Step 6 ÷ Step 4 × 100 =)										

Net Volume

1. Test the oysters at the temperature of 7 °C (± 1) [45 °F (± 2)].
2. Establish the level of fill of the package using a depth gage.
3. Empty and dry the package.
4. Refill the package with water to the level of the depth gage.
5. Record the amount of delivered water and then sum the quantities to obtain the total volume in the package.

Amount of Free Liquid	Quantity of Water Delivered into Package									
	Pkg 1	Pkg 2	Pkg 3	Pkg 4	Pkg 5	Pkg 6	Pkg 7	Pkg 8	Pkg 9	Pkg 10
8. Flask Size										
9. Flask Size										
10. Graduate or Cylinder										
11. Graduate or Cylinder										
12. Total (8 + 9 + 10 =)										

Comments:

Date: *December 20, 2013*	**Determining the Free Liquid and Net Volume of Oysters Worksheet – Example**			**Report Number**: *1 of 2*
Location (name, address): *Superchain Market Main Street Bradenton, FL*	**Product/Brand Identity:** *World's Best Oysters – Oyster Standard* **Lot Codes:** *12/26/2012*	**Manufacturer**: *World's Best Packing Beach Road, AL*		**Container Description:** *Clear Plastic Tub with metal pull top*
1. Labeled Quantity: *12 fl oz (355 ml)*	**2. Unit of Measure:** *0.001 lb*	**3. Inspection Lot Size:** *206*	**4. Sample Size:** *12*	

Amount of Free Liquid Values

Steps:	**Pkg 1**	**Pkg 2**	**Pkg 3**	**Pkg 4**	**Pkg 5**	**Pkg 6**	**Pkg 7**	**Pkg 8**	**Pkg 9**	**Pkg 10**
1. Weight of Dry Receiving Pan	*11.841*	*11.841*	*11.841*	*11.841*	*11.841*					
2. Gross Weight of Package	*0.871*	*0.884*	*0.920*	*0.869*	*0.8632*					
Reference Temperature of Oysters 7 °C (± 1) [45 °F (± 2)]	*44 °F*	*46 °F*	*44 °F*	*47 °F*	*45.5 °F*					
3. Tare Weight of Package	*0.060*	*0.060*	*0.060*	*0.059*	*0.060*					
4. Net Weight of Oysters & Liquid (Step 2 – Step 3 =)	*0.811*	*0.824*	*0.86*	*0.81*	*0.803*					
5. Weight of Receiving Pan and Drained Liquid	*12.020*	*12.121*	*12.120*	*12.031*	*12.242*					
6. Weight of Free Liquid (Step 5 – Step 1 =)	*0.179*	*0.28*	*0.279*	*0.19*	*0.401*					
7. Percentage (%) of Free Liquid (Step 6 ÷ Step 4 × 100 =)	*22 %*	*33 %*	*32 %*	*23 %*	*49 %*					

Net Volume

1. Test the oysters at the temperature of 7 °C (± 1) [45 °F (± 2)].
2. Establish the level of fill of the package using a depth gage.
3. Empty and dry the package.
4. Refill the package with water to the level of the depth gage.
5. Record the amount of delivered water and then sum the quantities to obtain the total volume in the package.

Amount of Free Liquid	**Quantity of Water Delivered into Package**									
	Pkg 1	**Pkg 2**	**Pkg 3**	**Pkg 4**	**Pkg 5**	**Pkg 6**	**Pkg 7**	**Pkg 8**	**Pkg 9**	**Pkg 10**
8. Flask Size										
9. Flask Size										
10. Graduate or Cylinder										
11. Graduate or Cylinder										
12. Total (8 + 9 + 10 =)										

Comments:

Inspector:	**Chitterlings Worksheet – Category A** (Net Weight & Purge Determinations)
Date:	

Packer:	**Lot Code:**	**Drain Pan Tare:**	**Unit of Measure:**
	Brand:		

Package Number	**A** **Labeled Net Weight**	**B** **Package Gross Weight**	**C** **Package Tare Weight**	**D** **Actual Package Net Weight** B – C =	**E** **Package Error** D – A =	**If Error *Exceeds* MAV = Fail**	**F** **Purged Net Wt Weight of Drained Chitterlings (or Purged Liquid) and Drain Pan − Drain Pan Tare =**	**G** **Purge %** $\frac{(A - F)}{A} \times 100$	
1									%
2									%
3									%
4									%
5									%
6									%
7									%
8									%
9									%
10									%
11									%
12									%

Number of Unreasonable Errors Allowed:	**E1 − Total Error :**	**G1 − Total Purge:**	%
	E2 – Average Error : (E1 ÷ n =)	**G2 – Average Purge:** (G1 ÷ n =)	%
Table 2-9. MAV:	**G3 – Adjusted Average Purge:** (G2 – Purge Sample Error Limit [PSEL] =)		%

NET WEIGHT COMPLIANCE: (1) If any of the minus package errors (see Column E) exceed the MAV, the sample fails. (2) If none exceeds the MAV and the Average Error (E2) is a positive number, the sample passes. (3) If the Average Error (E2) is a minus number, calculate the sample standard deviation and enter it below. (4) Use the Sample Correction Factor (SCF) to calculate the Sample Error Limit (SEL). (5) Disregarding the signs, (a) if the Average Error (E2) is larger than the SEL, the sample fails or (b) if the Average Error is less than the SEL the sample passes.

Standard Deviation: **× 0.635 (SCF) =** **(SEL)** ☐ **Passed** ☐ **Failed**

PURGE COMPLIANCE: MAVs are not applied in the purge test (1) If the Average Purge Error (G2) is less than or equal to 20 %, the sample passes. (2) If the Average Purge Error is greater than 20 %, calculate the sample standard deviation and enter it below. (3) Use the Sample Correction Factor (SCF) to calculate the Purge Sample Error Limit (PSEL) in percent. (4) Subtract the PSEL from the Average Purge (G2) to obtain an Adjusted Average Purge (AAP) and enter that value in G3. (5)(a) If the AAP (G3) is greater than 20 %, the sample fails or (b) if the AAP (G3) is 20 % or less, the sample passes.

Standard Deviation: **× 0.635 (SCF) =** **(PSEL)** **Purge (G3)** ☐ **Passed** ☐ **Failed**

Sample Disposition:

Inspector: *S. Inspector*	**Chitterlings Worksheet – Category A – Example** (Net Weight & Purge Determinations Worksheet)
Date: *July 12, 2016*	

Packer: *Packer Inc.* *1000 Roadway* *PackingTown, USA*	**Lot Code:** *a342012* **Brand:** *Allbrand*	**Drain Pan Tare:** *0.997 lb*	**Unit of Measure:** *lb*

Package Number	A Labeled Net Weight	B Package Gross Weight	C Package Tare Weight	D Actual Package Net Weight B – C =	E Package Error D – A =	If Error *Exceeds* MAV = Fail	F Purged Net Wt Weight of Drained Chitterlings (or Purged Liquid) and Drain Pan − Drain Pan Tare =	G Purge % (A – F) / A × 100	
1	*5 lb*	*5.130*	*0.032*	*5.098*	*0.098*		*4.19*	*16.2*	%
2		*5.160*	*0.033*	*5.127*	*0.127*		*4.21*	*15.8*	%
3		*5.012*	*0.032*	*4.980*	*− 0.020*		*4.17*	*16.6*	%
4		*5.170*	*0.034*	*5.136*	*0.136*		*4.20*	*16.0*	%
5		*5.020*	*0.033*	*4.987*	*− 0.013*		*4.18*	*16.4*	%
6		*5.102*	*0.032*	*5.070*	*0.070*		*4.22*	*15.6*	%
7		*5.051*	*0.033*	*5.018*	*0.018*		*4.24*	*15.2*	%
8		*5.116*	*0.032*	*5.084*	*0.084*		*4.20*	*16.0*	%
9		*5.120*	*0.034*	*5.086*	*0.086*		*4.19*	*16.2*	%
10		*5.023*	*0.032*	*4.991*	*− 0.009*		*4.20*	*16.0*	%
11		*5.122*	*0.032*	*5.090*	*0.090*		*4.26*	*14.8*	%
12		*5.020*	*0.033*	*4.987*	*− 0.013*		*4.18*	*16.4*	%

Number of Unreasonable Errors Allowed: NONE **Table 2-9. MAV:** *0.0.09 4 lb*	**E1 − Total Error:** *0.054 lb*	**G1 − Total Purge:** *191.2*	%
	E2 – Average Error: *0.004 5 lb* (E1 ÷ n =)	**G2 – Average Purge:** *15.9* (G1 ÷ n =)	%
	G3 – Adjusted Average Purge: (G2 – Purge Sample Error Limit [PSEL] =)		%

NET WEIGHT COMPLIANCE: (1) If any of the minus package errors (see Column E) exceed the MAV, the sample fails. (2) If none exceeds the MAV and the Average Error (E2) is a positive number, the sample passes. (3) If the Average Error (E2) is a minus number, calculate the sample standard deviation and enter it below. (4) Use the Sample Correction Factor (SCF) to calculate the Sample Error Limit (SEL). (5) Disregarding the signs, (a) if the Average Error (E2) is larger than the SEL, the sample fails or (b) if the Average Error is less than the SEL the sample passes.

Standard Deviation: *0.0601* × **0.635 (SCF)** = *0.038 2* **(SEL)** ☑ **Passed** ☐ **Failed**

PURGE COMPLIANCE: MAVs are not applied in the purge test (1) If the Average Purge Error (G2) is less than or equal to 20 %, the sample passes. (2) If the Average Purge Error is greater than 20 %, calculate the sample standard deviation and enter it below. (3) Use the Sample Correction Factor (SCF) to calculate the Purge Sample Error Limit (PSEL) in percent. (4) Subtract the PSEL from the Average Purge (G2) to obtain an Adjusted Average Purge (AAP) and enter that value in G3. (5)(a) If the AAP (G3) is greater than 20 %, the sample fails or (b) if the AAP (G3) is 20 % or less, the sample passes.

Standard Deviation: *2.420* × **0.635 (SCF)** = *1.536* **(PSEL)** **Purge (G3)** *18.83* % ☑ **Passed** ☐ **Failed**

Sample Disposition: *Lot passes on both criteria.*

Inspector:	**Chitterlings Worksheet – Category B** (For Use Inside a USDA Inspected Packing Plant Net Weight & Purge Determination)
Date:	

Packer:	**Lot Code:**	**Drain Pan Tare:**	**Unit of Measure:**
	Brand:		

Package Number	**A** Labeled Net Weight	**B** Package Gross Weight	**C** Package Tare Weight	**D** Actual Package Net Weight B – C =	**E** Package Error D – A =	If Error *Exceeds* MAV = Fail	**F** Purged Net Wt Drained Chitterlings (or Purged Liquid) and Pan − Drain Pan Tare =	**G** Purge % (A – F) / A × 100	
1									%
2									%
3									%
4									%
5									%
6									%
7									%
8									%
9									%
10									%

Number of Unreasonable Errors Allowed: NONE	**E1 – Total Error:**	**G1 –Total Purge:**	%
Table 2-9. MAV:	**E2 – Average Error:** (E1 ÷ n =)	**G2 – Average Purge:** (G1 ÷ n =)	%

NET WEIGHT COMPLIANCE: (1) If any of the minus package errors (see Column E) exceed the MAV the sample fails. (2) If none of the package errors exceeds the MAV and the Average Error (E2) is a positive number the sample passes. (3) If the Average Error (E2) is a minus number the sample fails.

☐ **Passed** ☐ **Failed**

PURGE COMPLIANCE: MAVs are not applied in the purge test (1) If the Average Purge Error (G2) is less than or equal to 20 %, the sample passes. (2) If the Average Purge Error (G2) is greater than 20 %, the sample fails.

Purge: ☐ **Passed** ☐ **Failed**

Sample Disposition:

Inspector: *S. Inspector*

Date: *July 14, 2016*

Chitterlings Worksheet – Category B – Example

(for use Inside a USDA Inspected Packing Plant Net Weight & Purge Determinations)

Packer: *Packer Inc. 1000 Roadway PackingTown, USA*

Lot Code: *A34526*

Brand: *Allbrand*

Drain Pan Tare: *0.997 lb*

Unit of Measure: *lb*

Package Number	A Labeled Net Weight	B Package Gross Weight	C Package Tare Weight	D Actual Package Net Weight B – C =	E Package Error D – A =	If Error *Exceeds* MAV = Fail	F Purged Net Wt Drained Chitterlings (or Purged Liquid) and Pan − Drain Pan Tare =	G Purge % (A – F) × 100 / A	
1	*5*	*5.130*	*0.032*	*5.098*	*0.098*		*4.19*	*16.2*	%
2		*5.160*	*0.033*	*5.127*	*0.127*		*4.21*	*15.8*	%
3		*5.012*	*0.032*	*4.980*	*− 0.020*		*4.17*	*16.6*	%
4		*5.170*	*0.034*	*5.136*	*0.136*		*4.20*	*16.0*	%
5		*5.020*	*0.033*	*4.987*	*− 0.013*		*4.18*	*16.4*	%
6		*5.102*	*0.032*	*5.070*	*0.070*		*4.22*	*15.6*	%
7		*5.051*	*0.033*	*5.018*	*0.018*		*4.24*	*15.2*	%
8		*5.116*	*0.032*	*5.084*	*0.084*		*4.20*	*16.0*	%
9		*5.120*	*0.034*	*5.086*	*0.086*		*4.19*	*16.2*	%
10		*5.023*	*0.032*	*4.991*	*− 0.009*		*4.20*	*16.0*	%

Number of Unreasonable Errors Allowed: NONE

Table 2-9. MAV: 0.094 lb

E1 – Total Error *0.057 lb*

E2 – Average Error *0.057 lb*
(E1 ÷ n =)

G1 –Total Purge: *160* %

G2 – Average Purge: *16* %
(G1 ÷ n =)

NET WEIGHT COMPLIANCE: (1) If any of the minus package errors (see Column E) exceed the MAV the sample fails. (2) If none of the package errors exceeds the MAV and the Average Error (E2) is a positive number the sample passes. (3) If the Average Error (E2) is a minus number the sample fails.

☑ **Passed** ☐ **Failed**

PURGE COMPLIANCE: MAVs are not applied in the purge test (1) If the Average Purge Error (G2) is less than or equal to 20 %, the sample passes. (2) If the Average Purge Error (G2) is greater than 20 %, the sample fails.

Purge: ☐ **Passed** ☐ **Failed**

Sample Disposition:

Date:	**Peat Moss Labeled by Volume Package Worksheet – Dimensional Procedure**			
Labeled Quantity	**Converted to Metric:**	**Largest Quantity:**	**Manufacturer:**	
			Product:	
Lot Size:		**Sample Size:**	**Lot Code:**	**Plant Number:**

1 cubic foot = 1 728 in^3 *Total Volume in cubic feet = L × W × H ÷ 1 728 or
1 Liter = 1 000 cm^3 *Total Volume in cubic meter = L × W × H ÷ 1 000 000

Dimensions Measured in: ☐ **mm** ☐ **in** **Package Error in:** ☐ **mL** ☐ **cu in**

	Length					**Avg**	**Width**					**Avg**	**Height**					**Avg**	**Total***
1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
11.																			
12.																			

Step 1. What is the MAV for this labeled quantity in Table 2-6?
☐ _____ **mL** ☐ _____ **cu in**

Total Package Error:

Step 2. How many minus errors exceed the MAV _____? If the number of unreasonable errors exceeds the number permitted for the sample size in Table 2-1., the sample fails; go to Step 7. If there are no Unreasonable Errors, sum the package errors, and calculate the Average Error entering it in Step 3. Go to Step 4.

Step 3: Average Package Error:

Step 4. If the Average Error is zero or a positive number, the sample passes; go to Step 7. If the Average Error is a negative number, go to Step 5.

Step 5. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*); go to Step 6.

(s)_____ × **(*SCF*)** _____ **= *SEL*** _____

Box 6. Disregarding the signs, is the *SEL* in Step 5 larger than the Average Package Error in Step 3? If yes, the sample passes, go to Step 7 and approve the lot. If no, the sample fails, go to Step 7 and reject the lot.

Step 7. Action Taken: ☐ Lot Rejected ☐ Lot Approved

Random Numbers: Enter the numbers as you select them in the top row and reorder them in the bottom row.

Date:	**Borax Audit Worksheet** Use only IF the sample fails the net weight test. Use the lightest package in the sample.
Inspector:	

1. Product:	**2. Lot Code:**
3. Declared Net Weight on the Package:	
4. Declared Volume on the Borax Package:	
5. Gross Weight of Package:	
6. Tare Weight of Package:	
7. Net Weight of Package:	
8. Volume of Dry Measure – Look up the volume of the dry measure in milliliters used to calculate the volume and enter it below: **= _____ mL** Dry Measure: Dry Pint = 550.6 mL; Dry Quart = 1 101 mL; Liter = 1 000 mL	
9. Empty Weight of Dry Measure:	
10. Gross Weight of Dry Measure + Borax:	
11. Net Weight of Borax in the Dry Measure: (Box 10 – Box 9) =	
12. Net Volume of Borax: (Box 7 ÷ Box 11) × Box 8 =	
13. Refer to <u>Step 10</u> to determine if the sample is in compliance or if further action is required.	

(Added 2016)

Softwood Lumber Worksheet

MAV for Packages Labeled by Length, Width, or Area (Table 2-8)

(**Note:** Lumber of a predetermined dimension as defined by NIST Handbook 130, Uniform Packaging and Labeling Regulations).

- 1 m (1 yd) or less in 3 % of labeled quantity.
- More than 1 m (1 yd) to 43 m (48 yd) is 1.5 % of labeled quantity.

Section 1. Compliance with Maximum Allowable Variation

1. Calculate the MAV for labeled thickness = _____. Do any of the minus errors for thickness exceed the MAV?
   □ Yes, go to Section 5. □ No, go to Section 2

2. Calculate the MAV for length = _____. Do any of the minus errors for width exceed the MAV?
   □ Yes, go to Section 5. □ No, go to Section 3

3. Calculate the MAV for labeled width = _____. Do any of the minus errors for length exceed the MAV?
   □ Yes, go to Section 5. □ No, go to Section 4

Section 2. Compliance with the Average Requirement – Thickness

4. Calculate the Average Error for labeled thickness _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 3. If the Average Error is a negative number, go to Step 5.

5. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 6.

   *(s)*_____ × (*SCF*) _____ = *SEL* _____

6. Disregarding the signs, is the *SEL* in Step 5 larger than the Average Error in Step 4? If yes, the lot passes on thickness. If no, go to Section 3.

Section 3. Compliance with the Average Requirement – Length

7. Calculate the Average Error for labeled length_____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 4. If the Average Error is a negative number, go to Step 8.

8. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 9.

   *(s)*_____ × (*SCF*) _____ = *SEL* _____

9. Disregarding the signs, is the *SEL* in Step 8 larger than the Average Error in Step 7? If yes, the lot passes on length. If no, go to Section 4.

Softwood Lumber Worksheet

Section 4. Compliance with the Average Requirement – Width

10. Calculate the Average Error for labeled width_. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 6. If the Average Error is a negative number, go to Step 11.

11. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 12.

*(s)*_____ × (*SCF*) _____ = *SEL* _____

12. Disregarding the signs, is the *SEL* in Step 11 larger than the Average Error in Step 10?

□ Yes, approve the lot. □ No, go to Section 5

Section 5. Determine Moisture Shrinkage Allowance

If the average error for any thickness or width measurement is a minus value, or if the MAV is exceeded, perform a moisture test on each piece to determine if a moisture shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV. If the average error is a minus value for any length measurement, or if the MAV is exceeded for any length measurement the lot fails. No moisture shrinkage allowance is applied to length.

Piece Number	Moisture Content	Moisture Shrinkage Allowance		Piece Number	Moisture Content	Moisture Shrinkage Allowance
1.				7.		
2.				8.		
3.				9.		
4.				10.		
5.				11.		
6.				12.		

Section 6. Action Taken: ☐ Lot Rejected ☐ Lot Approved

Comments:	**Official Name/Signature:**
	Date:

Random Numbers: Enter the numbers as you select them in the top row and reorder them in the bottom row.

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Softwood Lumber Worksheet

Product:		**Mill Number and Agency:**	
Labeled Dimensions:		**Address:**	**City/State/Zip:**
Length:			
Width:		**Brand/Grade/Surface:**	**Testing Location:**
Thickness:			

Piece Number	**Average Length**	**Average Width**	**Average Thickness**		**Piece Number**	**Average Length**	**Average Width**	**Average Thickness**
1.					7.			
Error:					Error:			
2.					8.			
Error:					Error:			
3.					9.			
Error:					Error:			
4.					10.			
Error:					Error:			
5.					11.			
Error:					Error:			
6.					12.			
Error:					Error:			
Total Average:								
Average Error:								

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Structural Plywood Sheets and Wood-Based Structural Panels Worksheet

MAV for Packages Labeled by Length, Width, or Area (Table 2-8)

(**Note:** Structural Plywood Sheets or Wood-Based Structural Panels of a predetermined dimension is considered a "package" as defined by NIST Handbook 130, Uniform Packaging and Labeling Regulations).

- 1 m (1 yd) or less in 3 % of labeled quantity.
- More than 1 m (1 yd) to 43 m (48 yd) is 1.5 % of labeled quantity.

Section 1. Compliance with Maximum Allowable Variation

1. Calculate the MAV for labeled thickness = _____. Do any of the minus errors for thickness exceed the MAV?

   □ Yes, go to Section 5. □ No, go to Section 2

2. Calculate the MAV for length = _____. Do any of the minus errors for width exceed the MAV?

   □ Yes, go to Section 5. □ No, go to Section 3

3. Calculate the MAV for labeled width = _____. Do any of the minus errors for length exceed the MAV?

   □ Yes, go to Section 5. □ No, go to Section 4

Section 2. Compliance with the Average Requirement – Thickness

4. Calculate the Average Error for labeled thickness _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 3. If the Average Error is a negative number, go to Step 5.

5. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 6.

   *(s)*_____ × (*SCF*) _____ = *SEL* _____

6. Disregarding the signs, is the *SEL* in Step 5 larger than the Average Error in Step 4? If yes, the lot passes on thickness. If no, go to Section 3.

Section 3. Compliance with the Average Requirement – Length

7. Calculate the Average Error for labeled length_____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 4. If the Average Error is a negative number, go to Step 8.

8. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 9.

   *(s)*_____ × (*SCF*) _____ = *SEL* _____

9. Disregarding the signs, is the *SEL* in Step 8 larger than the Average Error in Step 7? If yes, the lot passes on length. If no, go to Section 4.

Structural Plywood Sheets and Wood-Based Structural Panels Worksheet

Section 4. Compliance with the Average Requirement – Width

10. Calculate the Average Error for labeled width _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 6. If the Average Error is a negative number, go to Step 11.

11. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 12.

*(s)*_____ × (*SCF*) _____ = *SEL* _____

12. Disregarding the signs, is the *SEL* in Step 11 larger than the Average Error in Step 10? If yes, approve the lot.

□ Yes, approve the lot. □ No, go to Section 5

Section 5. Determine Moisture Shrinkage Allowance

If the average error for any dimension (thickness, length, width) is a minus value, or if the MAV is exceeded for any piece, perform a moisture test on each piece to determine if a shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV.

Piece Number	Moisture Content	Moisture Shrinkage Allowance		Piece Number	Moisture Content	Moisture Shrinkage Allowance
1.				7.		
2.				8.		
3.				9.		
4.				10.		
5.				11.		
6.				12.		

Section 6. Action Taken: ☐ Lot Rejected ☐ Lot Approved

Comments:	Official Name/Signature:
	Date:

Random Numbers: Enter the numbers as you select them in the top row and reorder them in the bottom row.

(Rev. 01/2020)

Structural Plywood Sheets and Wood-Based Structural Panels Worksheet

Product:	**Mill Number and Agency:**	
Labeled Dimensions:	**Address:**	**City/State/Zip:**
Length:		
Width:	**Brand/Grade/Surface:**	**Testing Location:**
Thickness:		

Piece Number	**Average Length**	**Average Width**	**Average Thickness**	**Piece Number**	**Average Length**	**Average Width**	**Average Thickness**
1.				7.			
Error:				Error:			
2.				8.			
Error:				Error:			
3.				9.			
Error:				Error:			
4.				10.			
Error:				Error:			
5.				11.			
Error:				Error:			
6.				12.			
Error:				Error:			
Total Average:							
Average Error:							

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