



TEN-E Packaging Services, Inc.

Trends in Packaging Testing

IPANA / RIPA Annual Conference

Boca Raton, Florida

October 19, 2012



- **LOGSA:**
 - Contract with DOT to conduct tests
 - Limited Interaction with manufacturer / certification holder
 - Test as directed by DOT and report results to DOT
 - Testing may include more than regulations require (i.e more samples tested)
 - **3rd Party Lab:**
 - Perform UN/DOT tests on behalf of manufacturer / client
 - Considerable interaction with manufacturer / client
 - Discuss test plan/ assembly instructions with client
 - Report results / issues back to the client
 - Potential for adjustments in test plan
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Goal: Safely Transport Materials



DOT Title 49 CFR

UN Performance Test Requirements

Non-Bulk

UN Performance Tests	Single & Composite Packagings	
	for Liquids	for Solids
§178.603 - Drop	x	x
§178.604 – Leakproofness	x	---
§178.605 - Hydrostatic	x	---
§178.606 - Stacking	x	x
§178.608 - Vibration	x	x

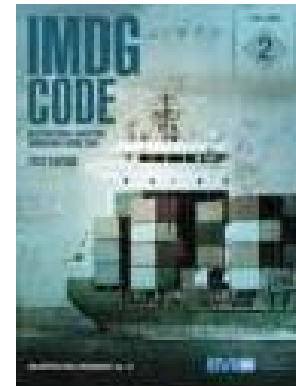
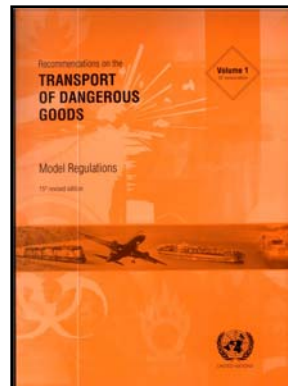
DOT Title 49 CFR

UN Performance Test Requirements

Bulk Packaging - IBC

UN Performance Tests	Composite IBCs	
	for Liquids	for Solids
§178.819 - Vibration	x	x
§178.811 - Bottom Lift	x	x
§178.815 - Stacking	x	x
§178.813 – Leakproofness	x	---
§178.814 - Hydrostatic	x	---
§178.810 - Drop	x	x

Regulations (49 CFR, UN, IMDG...) provide the test level but **not** the specific information on how to conduct the UN performance tests



Where do testers go for guidance?

- LOGSA (Tobyhanna)?
 - 3rd Party Labs?
 - CEN/ISO?
 - Industry Associations?
 - Other options.....
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American Society for Testing & Materials

D10 Committee on Packaging

- D10.21 Subcommittee:

*Shipping Containers and Systems – Application of
Performance Test Methods*

- Task Group D 4919:
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Active Participants in ASTM D 4919

- 3rd Party Approved Test Labs (4-5)
- LOGSA (1-2)
- DOT (Ben Moore)
- Plastic Container Manufacturer (2-3)
- Corrugated Container Manufacturer (2-3)
- Combination Packaging Supplier (1)
- Chemical Company (1)
- DOD (US Army / AF)



ASTM D 4919 Task Group Activities

- **ASTM D 4919:** Standard Guide for Testing Hazardous Materials Packagings (approved 2003)
 - **ASTM D 7387** Test Method for Vibration Testing of IBC's intended for Liquid Hazardous Materials (approved 2007)
 - **ASTM D 7660** Guide for Conducting Pressure Test for UN Packagings (approved 2010)
 - **Work Item WK30674:** Guide for Preparation of Plastic Packagings Containing Liquids for UN Drop Testing (completed September 2012)
 - **Work Item WK32937:** Guide for Selection of Liquid Filling Materials (draft document developed – not voted on yet)
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- **A Trend in Packaging Testing....** should be the continued development of agreed upon test procedures
 - **ASTM D4919 needs....**
 - more participation from Container Manufacturers and Suppliers
 - help identify the concerns and issues with the UN performance tests
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Setting the Standard

Thank You!

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