

2007 Regulatory Changes

Dealing with 2007 Changes?

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HALLIBURTON

- **About Halliburton**
- Founded in 1919, Halliburton is one of the world's largest providers of products and services to the oil and gas industries. The Company adds value through the entire lifecycle of oil and gas reservoirs and provides and integrates products and services, starting with exploration and development, moving through production, operations, maintenance, conversion and refining, to infrastructure and abandonment. Halliburton employs more than 100,000 people in over 120 countries working in five major operating groups:

Modal Regulations

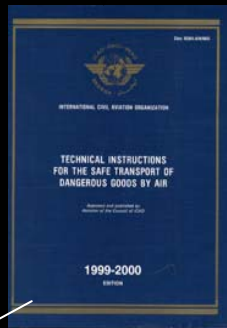
Other Domestic Regulations

Canadian TDGR

Mexican Standards



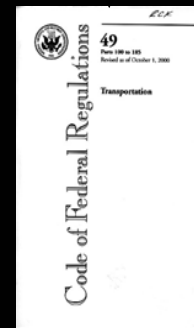
The UN Model Regulations serve as the basis for transport regulations



Air



Ocean



US HMR



Europe



GHS is Coming..... I think

Concerns?

- Changes and International Regulation Differences
- Out with the OLD and in with the NEW
- Re-evaluating Products (Primarily Flammables and Toxics)
- Getting on the same page
- Fool proofing the systems...

Changes and International Regulation Differences

- **Instructor Qualification**
- **Training requirements and satisfying the required needs for the category of personnel.**
- **Security and Security Awareness**
- **Retention of documents for Shippers, Carriers, Forwarders (Note: Changed Last Year, but not everyone is complying)**

Upcoming Changes and Modal regulation differences

- **Instructor Qualification**

What kind of experience, and how much experience constitutes enough knowledge to administer a training course?

The IATA Regulations state they must have successfully completed a dangerous goods training program in the appropriate category 6 of table 1.5A.

What kind of score must they get, should they have any knowledge of other transportation regulations?

- **Should there be additional guidance?**

Upcoming Changes and Modal regulation differences

Instructor Qualifications. Should there be additional guidance?



Blind leading the Blind seemed to always work pretty well in the past...why should we make any changes?

"Let them alone: they be blind leaders of the blind. And if the blind lead the blind, both shall fall into the ditch." (Mathew 15:14)

Upcoming Changes and Modal regulation differences

- **Instructor Qualification**
49CFR really are not very detailed when it comes to qualifications.

Some valuable qualifications could be:

- **Working Knowledge**
- **Practical Experience**
- **Ability to work out problems**
- **Pass other hazardous material training courses with distinction.**

Passing is not the same as passing with a very good score which indicates you have a good understanding...



Newly Qualified Instructor

- Your Instructor Tiny couldn't be here today because he didn't pick his quota of turnips.
- He also couldn't find the training room...



Upcoming Changes and Modal regulation differences

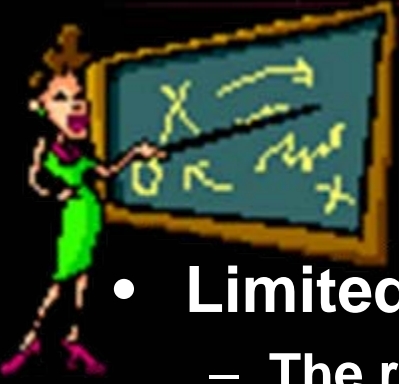
- **Security Awareness and In-depth**
- **49CFR and other US Agencies are starting to align on the content of what is required for Hazardous Material Shippers, Forwarders (“IAC”) and Carriers.**
- **International regulations are also adopting and harmonizing what make a High Consequence Dangerous Goods.**

Out with the Old?



- **Some changes are mandatory when shipping by certain modes.**
 - **Example: Documentation sequence**
 - **DOT Allows new sequence, but has not committed to the one sequence as the air regulations have.**
 - **Training may be difficult for Shippers that move products by all modes, International and Domestic.**
 - **Enforcement may also become difficult if agent training is not up to date.**
 - **Easiest way?**
 - **Try to train to comply by all modes as soon as possible.**





Out with the Old?

UN1993

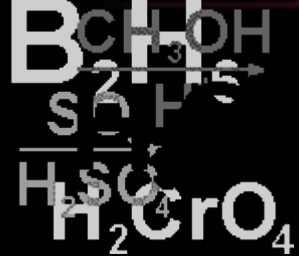
- **Limited Quantities**

- **The regulations are fairly close to being harmonized, however there are still decisions to be made and the consideration that all employees do not get trained at the same time.**
- **If a Shipper trains their employees to use the new marking requirements for air transport and the carriers acceptance staff has not been trained on the current changes, the Shipper's cargo will more than likely be delayed .**
- **Should Shippers wait to implement some of these changes when taking into account the dissemination of new acceptable procedures?**
- **Air transport is allowing the new marking 2007, but anticipates 2009 becoming mandatory.**

Product Evaluation

- Due to the limitation changes for **Class 3 Flammable** and **Class 6.1 Toxic** having changed it is imperative to re-evaluate those products in your companies system.
- **THIS SHOULD BE DONE NOW. JANUARY 1, 2007 PHMSA WILL HARMONIZE WITH THE INTERNATIONAL REGULATIONS ON CLASSIFICATION**



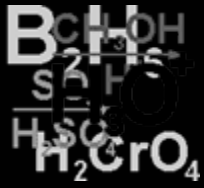


Product Evaluation

GHS Driven Issues

- Flammable Liquid Flashpoint
 - *Cut-Off changed from 60.5 °C to 60 °C*
- Classification of Oxidizers
 - *oxidizers containing 5% or more combustible organic substances shall be subjected to the self-reactive substance classification procedure*
- Classification of Toxic Materials (see following slides)
- Organic Peroxide Label/Placard





HM-215I Potential Highlights

GHS Driven Issues



Amended Acute Toxicity Criteria

- The following revised criteria was adopted by the TDG SC on the basis of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS):

Packing group	Oral toxicity LD ₅₀ (mg/kg)	Dermal toxicity LD ₅₀ (mg/kg)	Inhalation toxicity by dusts and mists LC ₅₀ (mg/l)
I	≤ 5.0	≤ 50	≤ 0.2
II	> 5.0 and ≤ 50	> 50 and ≤ 200	> 0.2 and ≤ 2.0
III ^a	> 50 and ≤ 300	> 200 and ≤ 1000	> 2.0 and ≤ 4.0

Other Changes

- Sequence of information (mandatory by Air)
(Recommended by Ocean, ADR, RID, ADN, TDG)
- 49 CFR states that it is an acceptable alternative.
- HMT amendments (Additions, deletions, amendments)
- **Some very important items such as forbidden substances listed in the 49CFR, were currently not listed in the ICAO, and IMDG regulations.**

HM-215I Potential Highlights

Revised Organic Peroxide Label/Placard

Before



After



- better differentiation from oxidizers, with which OP's are not compatible
- communicates flammability hazard

Some transition period

Lithium Batteries

Hazardous Materials: Prohibition on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule; correction.

SUMMARY: PHMSA is correcting an error in an interim final rule, published in the Federal Register on December 15, 2004.

That interim final rule imposed a limited prohibition on offering for transportation and transportation of primary lithium batteries and cells as cargo aboard passenger-carrying aircraft and equipment containing or packed with large lithium batteries.

DATES: Effective date: October 1, 2006.

In this final rule, we are correcting Special Provision A101 to specify that the net weight of a package containing a lithium battery or cell that is packed with equipment may be transported on board passenger carrying aircraft provided the net weight of the lithium batteries in the package does not exceed 5 kg and the other conditions set forth in the special provision are met. This limit does not affect the amount of lithium authorized in a battery or a cell.

Lithium Batteries

- We (Halliburton) have decided as a company that we would continue shipping all of our Lithium Battery shipments on Cargo Flights.
- There have been too many accidents concerning handling of these products.
- The batteries themselves are marked, labeled, identified and documented correctly, they are just not being handled correctly.
- WHY TAKE A CHANCE?

Lithium Batteries

- **New final rule and limitation may be very beneficial to companies that manufacture batteries.**
- **We (Halliburton) are the end user and contract out the manufacturing, so we are sticking with the more restrictive requirements.**



A Lithium Battery shipment that was opened by Customs and then mishandled



This was not in the United States, but as you can tell handling was the issue, not packing, marking, labeling, or documentation

Getting on the same page

- How can all shippers, carriers and forwarders get on the same page and handle and process shipments in the same manner?



- Training must be consistent.
- Emphasis should be on how to accept legally, not how to refuse.
- What is Legal, Safe and Compliant?

Getting on the same page

- **Enforcement Agencies also must be on the same page and safety should be priority**



- **Training again must be consistent.**
- **What is Legal, Safe and Compliant?**

Fool proofing the systems...

- Harmonization is the primary key to consistency
- Harmonizing training is another key element.
- One Item of Consistency:
- **(My personal opinion)** Shippers, forwarders, and all Carriers should all be required to complete checklists prior to releasing cargo and/ or acceptance of cargo.





- **One more thing...**
- **Make sure to let your children ride on the inside of the plane...**
- **They may thank you for it later in life...**
- **BE SAFE**