



Round Table on Transportation Issues

IRCC T&D Committee Members
Steve Hutton, Dow AgroSciences
Don Schultz, Winfield Solutions
Dave Peters, Monsanto



Round Table Agenda

- Introduction to the IRCC T&D Committee
- PHMSA
 - Security plans
 - DOT Fines
 - DOT Audit tips
- FMSCA
 - Audit experience
 - CSA 2010
 - Hours of service
 - 100 Mile exception
- Classification
 - Class 9
 - Marine pollutants
- DOT Non-specification containers & EPA's container/containment rule



IRCC T&D Committee

- Interregional Coordinating Council (IRCC)
- Formed in 1991
- Coordinates programs of the three regional crop protection associations
 - Southern Crop Production Association
 - Mid America CropLife Association
 - Western Plant Health Association
- Works with CropLife America



IRCC T&D Committee

- Transportation & Distribution (T&D) Committee
- Formed by the IRCC Executive Board
- This committee has representatives from major crop protection manufacturers and distributors.
 - Membership is open to all CropLife America and regional association member companies



IRCC T&D Committee

- Objectives

- Interpret, summarize, and communicate the U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR) to the crop protection industry
 - Reviews DOT and international regulations
 - Comments on proposed rules
 - Prepares training materials
 - Issues informational bulletins summarizing regulatory compliance requirements



IRCC T&D Committee

- Publications and other information
 - "Hazardous Materials Shipping Guide"
 - A booklet summarizing the DOT regulations
 - Specific for the Ag industries
 - Updated as regulations change
 - Hazardous Materials Shipping Descriptions table
 - DOT HazMat rule summary bulletins
 - List of emergency response contractors
- Available free to anyone who needs them



Today's IRCC T&D Presenters

- Steve Hutton

Dow AgroSciences

North America Product Stewardship Senior Specialist

- Don Schultz

Land O'Lakes

DOT Compliance Manager

- Dave Peters

Monsanto

Regulatory Compliance Lead

www.phmsa.dot.gov/home

The screenshot shows the PHMSA website homepage. At the top left is the PHMSA logo and the text "U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration". To the right are navigation links for "Careers", "Contact Us", "FAQs", and "Site Map", along with a search bar and a "Go" button. Below the header is a navigation menu with categories: "For the Public", "Hazmat Safety Community", "Pipeline Safety Community", "Media | Congress", and "Doing Business with PHMSA".

The main content area features a mission statement: "PHMSA's mission is to protect people and the environment from the risks inherent in transportation of hazardous materials - by pipeline and other modes of transportation." To the right of this text is a photograph of a yellow "WARNING CALL BEFORE YOU DIG GAS PIPELINE" marker.

On the left side, there are several vertical menu items: "Home", "About PHMSA" (with sub-links for Mission and Goals, About the Agency, Key Officials, Organization, and Calendar), "Promoting Safety & Security" (with sub-links for Regulations, Special Permits & Approvals, International Standards, Security, and Initiatives), "Encouraging Compliance" (with sub-links for Training Resources, Outreach, Inspections & Enforcement, and Drug & Alcohol Testing), and "Supporting Community Response".

The "Latest News" section lists several items from June 2010, including a hearing on hazardous liquid pipeline safety, a written statement before the Commerce, Science, and Transportation Subcommittee, and a pipeline safety advisory bulletin regarding the Deepwater Horizon oil spill.

On the right side, there is a prominent "811 - Call before you Dig" banner with the 811 logo and the slogan "Know what's below. Call before you dig." Below this are links for "Call Before You Dig" and "NATIONAL 8-1-1 CALL BEFORE YOU DIG NUMBER PROTECTS INFRASTRUCTURE".

At the bottom right, there is a section for "Special Permits and Approvals Safety Enhancement Project" with a logo for "SPECIAL PERMITS and APPROVALS".

Safety and Security Plans

- Applicability
 - 49CFR§172.800(b)(7): “A quantity of hazardous material that requires placarding under the provisions of subpart F of this part.”
- Components of a security plan
 - 49CFR§172.802(a): “The security plan must include an assessment of possible transportation security risks . . . and appropriate measures to address the assessed risks.”
 - Elements (minimum): personnel security, unauthorized access and en route security.

PHMSA Releases the 2009 Notice of Hazardous Materials Regulations Enforcement

Calendar Year	Total Dollar Amount	Total # of Closed Penalty Cases
2005	\$2,153,155	349
2006	\$2,230,793	420
2007	\$893,133	169
2008	\$1,135,257	130
2009	\$1,225,856	510

Pipeline and Hazardous Materials Safety Administration Notice of Hazardous Materials Regulations Enforcement

- Want to know what the DOT is looking for?
 - Read their Notices on Enforcement!
- Typical examples. “Respondent:
 - Shipped hazmat in unauthorized non-UN standard packagings.
 - Offered hazmat accompanied by incorrect shipping papers.
 - Offered hazmat when failing to retain shipping papers for two years.
 - Allowed employees to perform functions subject to the HMR, while failing to provide each hazmat employee recurrent training.
 - Transported in commerce a quantity of hazmat that required placarding when it had not developed and adhered to a security plan.
 - Filled and offered IBCs out of test dates.

Clues that help a DOT inspector “target in”!!!

- Employee comments:
 - “We check the **big labels on the trucks** every time before we hit the road.” **TRAINING**
 - “I **suppose** that **gate gets locked** at night.” **SECURITY PLAN & TRAINING**
 - “**Anything that needs done** around here – **everyone** pitches in and **does it all!**” **TRAINING**
 - “Oh, that stuff there? **It just came in last week** from a sister plant.”



Experiences of a recent DOT audit

- Roadside violations
 - Driver name, DOT file, HOS
- Annual inspections
 - Tractors, straight trucks, trailers
- Pre-Employment drug screen
 - Completed with negative results before driving CMV
- Random drug & alcohol program
 - Results from previous years, drivers in pool

Hours of Service

Hours of service over the years

	1937	1962	2003	2005, 2007, 2008
Driving	10 hours	10 hours	11 hours	11 hours
Duty period	24 consecutive hours from duty start time	15-hour driving window, extendable by breaks	14-hour driving window, not extendable by breaks	14-hour driving window, not extendable by breaks
Off-duty	8 hours	8 hours	10 hours	10 hours
7/8 day limits	60/70 hours in 7/8 days	60/70 hours in 7/8 days	60/70 hours in 7/8 days	60/70 hours in 7/8 days
Restart of 60/70 hour period	None	None	34-hour restart	34-hour restart
Sleeper berth	Two undefined periods totaling 8 hours	Two periods totaling 8 or more hours: each a minimum of 2 hours	Two periods totaling 10 or more hours: each a minimum of 2 hours	Two periods totaling 10 or more hours: one at least 8 consecutive hours, and the other at least 2 off-duty or sleeper
Time period reference	24-hour period from duty start time	Hours accumulated following 8 hours off-duty	Hours accumulated following 10 hours off-duty	Hours accumulated following 10 hours off-duty

100 Mile Exemption

- Drivers must operate within 100 air mile radius of their normal reporting location
- You must be back to your work reporting location within 12 hours of start time
- You cannot exceed the 11 hour driving time.
- You cannot drive after the 12 hour without 10 consecutive hours off
- Each day must be accounted for on time card including weekends, holidays and vacation
- Records are kept for 180 days

New Safety Measurement System

- System CSA 2010 introduces a new safety measurement system (SMS) that...
 - Uses crash records and ALL roadside inspection safety-based violations to determine carrier/driver safety
 - Weights time and severity of violations based on relationship to crash risk
 - Triggers the intervention process (eventually will feed the proposed Safety Fitness Determination)
 - Calculates safety performance based on 7 **B**ehavior **A**nalysis and **S**afety **I**mprovement **C**ategories (BASICs)

3 Key Points to Remember

- The FMCSA is changing the way it does business and it will affect drivers
- Drivers will be scored, tracked and penalized just like motor carriers
- Everything counts now, not just out-of-service violations (OOS), crashes, and in some cases, moving violations

More Class 9s? What is driving this?

- Definition (ref: 49CFR§173.140): “Miscellaneous hazardous material (Class 9) means a material which presents a hazard during transportation but which does not meet the definition of any other hazard class.
 - Any material which has an anesthetic, noxious or other similar property which could cause annoyance or discomfort to a flight crew so as to prevent the correct performance of assigned duties; or
 - Any material that meets the definition of §171.8 for an elevated temperature material, a hazardous substance, a hazardous waste or a marine pollutant.

More Class 9s? What is driving this?

- Safer actives
 - Many of the newer FIFRA regulated materials do not have the toxicity (6.1) characteristics of the “older” molecules
- Higher flashpoint solvents/inerts
 - Companies are trying to move away from formulations that require a flammable or a combustible hazard classification
- Adoption of Global Harmonization Standards (GHS) relative to aquatic toxicity classifications

GHS and



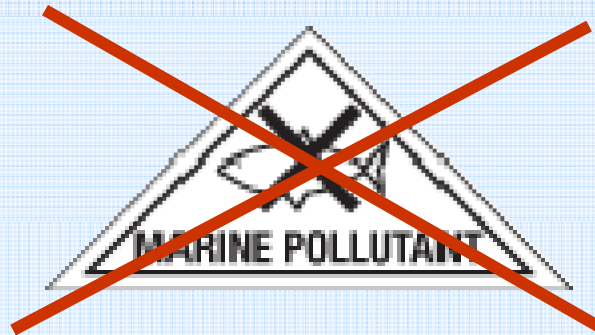
- Two important items to differentiate
- **Classification**
 - GHS: Global Harmonization Standard
 - GHS established criteria and a process to use to classify for aquatic toxicity (Marine Pollutant - MP)
 - UN model regulations, International Maritime Organization have adopted GHS.
 - IATA will adopt January 1, 2011.
 - DOT will not require GHS for ground domestic shipments (will stay with the Marine Pollutant List as the required process for classifying for MP). DOT does allow classification by GHS.

New Marine Pollutant **Mark**

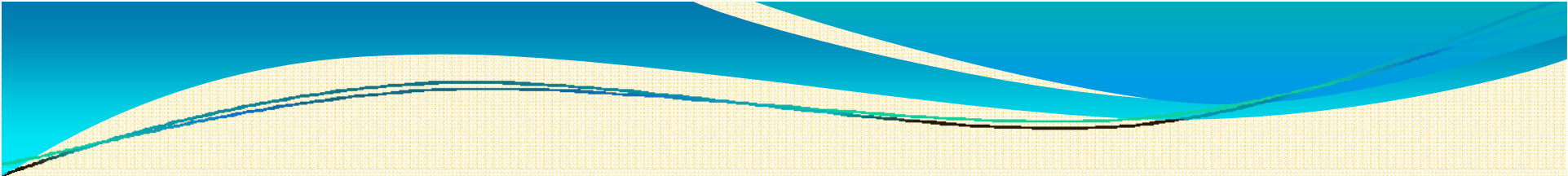
- Two important items to differentiate

- **Marking**

- DOT required this new mark effective January 14, 2010. (ref: 49CFR§172.322(e))



Don't ship with this old Marine Pollutant Mark!!!



The Intersection (Collision?) of DOT Non-Specification Containers & EPA's Container/Containment Rule

Agenda

- Containers/Packaging
 - Specification packaging
 - Defined
 - Requirements
 - Marks
- Intermediate Bulk Containers (IBCs)
- EPA's Container/Containment Rule
 - Repackaging requirements
 - Non-specification packaging
- Now what am I suppose to do?
 - Registrant's responsibilities

Containers/Packaging

- Packaging
 - Means a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this subchapter. (49 CFR 171.8)
- Package/Outside package
 - Means a packaging plus its contents. (49 CFR 171.8)

Containers/Packaging

- Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:
 - (1) A maximum capacity greater than 450 L (119 gallons) as a receptacle for a liquid;
 - (2) A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or
 - (3) A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in §173.115 of this subchapter. [49 CFR] (49 CFR 171.8)

Containers/Packaging

- Non-bulk packaging means a packaging which has:
 - (1) A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid;
 - (2) A maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid; or
 - (3) A water capacity of 454 kg (1000 pounds) or less as a receptacle for a gas as defined in §173.115 of this subchapter. [49 CFR] (49 CFR 171.8)

Containers/Packaging

- Packaging systems are identified by specification marks applied to the packaging to:
 - To communicate information required for the selection of the correct packaging.
 - Indicate that the packaging meets the requirements of the United Nations Performance Oriented Packaging (POP)

Containers/Packaging

- Performance testing
 - Drop test
 - All non-bulk packaging
 - No damage that would adversely affect safety while in transportation
 - Leakproofness test
 - All non-bulk packaging for liquids
 - No leakage of air from the packaging

Containers/Packaging

- Performance testing
 - Hydrostatic test
 - All metal, plastic and composite packaging intended for liquids
 - No leakage from the package
 - Stacking test
 - All packagings except bags
 - No leak or adverse deterioration that could affect safety during transport
 - May not exhibit distortion likely to reduce its strength
 - May not cause instability in stacks of packages
 - May not damage inner packagings that could affect safety during transport

Containers/Packaging

- Performance testing
 - Vibration standard
 - All packaging systems
 - No rupture
 - No leakage
 - No deterioration that could affect safety during transport

Containers/Packaging

- Marking performance packaging
 - A packaging manufacturer must mark every packaging that is represented as manufactured to meet a UN standard
 - Must be durable, legible and placed in a location and of such a size relative to the packaging as to be readily visible

Containers/Packaging

- Marking performance packaging
 - A packaging identification code designating the type of packaging, the material of construction and, when appropriate, the category of packaging (49 CFR 178.503)

Intermediate bulk containers (IBCs)

- Means a rigid or flexible portable packaging, other than a cylinder or portable tank, which is designed for mechanical handling.
- Standards for IBCs manufactured in the United States are set forth in subparts N and O of part 178 of this subchapter [49 CFR]. (49 CFR 171.8)

Intermediate bulk containers (IBCs)

- The following definitions pertain to the IBC standards
 - (1) *Body* means the receptacle proper (including openings and their closures, but not including service equipment), that has a volumetric capacity of not more than three cubic meters (3,000 L, 793 gallons, or 106 cubic feet) and not less than 0.45 cubic meters (450 L, 119 gallons, or 15.9 cubic feet) or a maximum net mass of not less than 400 kg (882 pounds).
 - (2) *Service equipment* means filling and discharge, pressure relief, safety, heating and heat-insulating devices and measuring instruments.
 - (3) *Structural equipment* means the reinforcing, fastening, handling, protective or stabilizing members of the body or stacking load bearing structural members (such as metal cages).
 - (4) *Maximum permissible gross mass* means the mass of the body, its service equipment, structural equipment and the maximum net mass (see §171.8 of this subchapter [49 CFR]).

Intermediate bulk containers (IBCs)

- Design requalification tests must be conducted at least once every 12 months.
- Test records must be maintained at each location where manufactured and where design qualification testing is performed.
 - They must be maintained for as long as the IBCs are manufactured and for at least 2.5 years thereafter.

Intermediate bulk containers (IBCs)

- Tests required for certification of rigid plastic and metal IBCs are as follows:
 - Drop (from a height of 2.6 feet for PG III materials)
 - Vibration (for 1 hour)
 - Leakproofness (at least 2.9 psig for a suitable length of time)
 - Hydrostatic (at least 14.5 psig for 10 minutes)
 - Stacking (freestanding rigid plastic IBCs must have a load 1.8 times the combined maximum gross weight of the number of similar IBCs that may be stacked on top, tested for 28 days at 40 °C [104 °F])
 - Bottom lift* (IBC loaded to 1.25 times its maximum permissible gross weight)
 - Top lift* (IBC loaded to twice its maximum permissible gross weight)

*if designed to be handled in this way

Intermediate bulk containers (IBCs)

- Vibration, lift, stacking, and drop tests must be performed on IBCs prepared in the same manner as transported (i.e. portable tanks that are transported with pumps and meters mounted must also be tested with this equipment mounted to be in compliance).

Intermediate bulk containers (IBCs)

- The IBC certification markings are comprised of the following elements:
 - UN symbol
 - Code numbers designating IBC type
 - Packing Group designation
 - Month and year of manufacture
 - The country authorizing allocation of the mark
 - Name and address or symbol of the person certifying UN compliance
 - Stacking test load in kilograms
 - Maximum permissible gross weight
 - Rated capacity in liters
 - Tare weight in kilograms
 - Gauge test pressure in kPa
 - Month and year of last leakproofness test
 - Month and year of last inspection

Intermediate bulk containers (IBCs)

- Marking for a plastic IBC with structural equipment intended for liquids



31H1/Y/06 08
USA/MXXX/3600/1200

31H1 = packaging code

Y = performance level (packaging group)

06 = month made

08 = year made

USA = country of authorization

MXXX = manufacturer code

3600 = stacking test load

1200 = maximum gross weight in kilograms

Intermediate bulk containers (IBCs)

- Leakproofness test (49 CFR 178.813)
 - Conducted on:
 - All IBC design types
 - All production units
 - Intended to contain solids that are loaded or discharged under pressure
 - Intended to contain liquids
 - Conducted
 - Initially after production
 - Every 2.5 years starting from the date of manufacture marked on the tank. (49 CFR 180.352(b))
 - Vented closures must either be replaced by similar non-vented closures or the vent must be sealed

Intermediate bulk containers (IBCs)

- Leakproofness test (49 CFR 178.813)
 - Test details
 - Using air at a gauge pressure of not less than 20 kPa (2.9 psig).
 - Leakproofness of IBC design types must be determined by coating the seams and joints with a heavy oil, a soap solution and water, or other methods suitable for the purpose of detecting leaks.
 - Other methods in accordance with appendix B of this part
 - If approved by the Associate Administrator, as provided in 49 CFR 178.801(i).
 - Passes test if there is no leakage of air from the IBC.

EPA's Container/Containment Rule

- Any pesticide product packaged in a refillable container and released for shipment after Aug. 16, 2011 must be in compliance.

EPA's Container/Containment Rule

- Pesticide products that are not DOT hazardous materials must be packaged in a container that is designed, constructed and marked to comply with the requirements for a Packing Group III material. Containers without visible DOT markings are acceptable, provided the registrant authorizes the containers for use, and the containers have passed appropriate Packing Group III tests.

EPA's Container/Containment Rule

Title 40: Protection of Environment

§ 165.45 Refillable container standards.

(a) *What Department of Transportation (DOT) standards do my refillable containers have to meet under this part if my pesticide product is not a DOT hazardous material ?*

(1) A pesticide product that does not meet the definition of a hazardous material in 49 CFR 171.8 must be packaged in a refillable container that, if portable, is designed, constructed, and marked to comply with the requirements of 49 CFR 173.4, 173.5, 173.6, 173.24, 173.24a, 173.24b, 173.28, 173.155, 173.203, 173.213, 173.240(c), 173.240(d), **173.241(c)**, 173.241(d), part 178, and part 180 that are applicable to a Packing Group III material, or, if subject to a special permit, according to the applicable requirements of 49 CFR part 107 subpart B. The requirements in this paragraph apply to the pesticide product as it is packaged for transportation in commerce.

DOT non-specification packaging

Title 49: Transportation

§ 173.241 Bulk packagings for **certain low hazard liquid** and **solid materials**.

- c) *Portable tanks*. DOT Specification 51, 56, 57 and 60 portable tanks; IMO type 1, 2 and 5, and IM 101 and IM 102 portable tanks; UN portable tanks; marine portable tanks conforming to 46 CFR part 64; **and non-DOT Specification portable tanks suitable for transport of liquids are authorized**. For transportation by vessel, also see §176.340 of this subchapter. For transportation of combustible liquids by vessel, additional requirements are specified in §176.340 of this subchapter.

EPA's Container/Containment Rule

- All containers must be durably marked with a serial number or other identifying code.
- Each opening (other than a vent) of a portable pesticide container must have a one way valve, tamper-evident device, or both.
- Stationary containers > 500 gallons for liquids must have a vent and shut-off valve capable of being locked. Site gauges are prohibited.

EPA's Container/Containment Rule

- Refiller Responsibilities:
 - Must repackage into a container identified on the registrant's list of acceptable containers
 - Can repackage any quantity of pesticide into a refillable container, up to the rated capacity of the container; there is no limit on size of the container
 - Before repackaging, the refiller must have: (1) the label and labeling; (2) residue removal procedures; and (3) the list of acceptable containers
 - If a tamper-evident device or one-way valve is not intact, the refiller must clean the container using the residue removal procedure. In addition, other procedures may be necessary to assure the product's integrity is maintained

EPA's Container/Containment Rule

- Refiller responsibilities:
 - The refiller must ensure the pesticide's label is securely attached to the container
 - Each time a pesticide is repackaged, the refiller must generate and keep for 3 years:
 - The EPA registration number of the pesticide
 - The date of repackaging
 - The serial number or other identifying code of the container
 - Before repackaging, a refiller must have a written contract from the pesticide's registrant

EPA's Container/Containment Rule

- Now what am I suppose to do?
 - Registrant's responsibility for repackaging pesticide products into refillable containers
 - Pesticide must be repackaged at a registered refilling establishment
 - Registrants must develop a written residue removal procedure
 - Registrants must provide a listing of acceptable refillable containers
 - Refiller must repackage into a container identified on the registrant's list of acceptable containers



Any questions?



IRCC T&D Committee

- For more information concerning the IRCC T&D Committee
- Contact:
 - Address:
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