



Vol. 15, No. 1, March 2016

Training Resources and Information for the Nuclear Industry

IATA DGR 2016 Updates

International Air Transport Association (IATA) has pub-

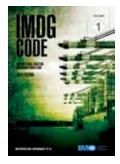
lished an Addendum on 19 January 2016 for the 2016 Dangerous Goods Regulations (DGR) 57th edition. These regulations and updates are for shippers of dangerous goods (hazardous material) transported by air. This addendum contains significant changes to the provisions for lithium ion batteries (UN 3480) shipped under Packing Instruction (PI) 965 and to



Section II of PI 968 for lithium metal batteries (UN 3090). These changes take effect as of 01 April 2016. The addendum also contains other changes and corrections to the DGR, these are effective immediately. The addendum also contains new and modified State and operator variations. Please take the time to download your own copy of these updates from IATA's download website http://www. iata.org/whatwedo/cargo/dgr/Pages/download.aspx

IMO Updates IMDG Code 37-14

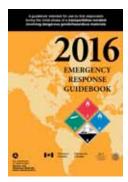
International Maritime Organization (IMO) has published an Errata and Corrigenda dated December 2015 for the International Maritime Dangerous Goods (IMDG) Code 2014 edition incorporating Amendment 37-14. These regulations and updates are for shippers of dangerous goods (hazardous material) transported in inter-



national waters. This Errata and Corrigenda makes many editorial corrections to both volumes of the IMDG Code (Amendment 37-14) which are effective January 1, 2016. Please take the time to download your own copy of these updates from IMO's IMDG Code webpage http://www. imo.org/en/Publications/IMDGCode/Pages/Default.aspx

Emergency Response Guidebook Updated

The Pipeline and Hazardous Materials Safety Administration (PHMSA) Department of Transportation (DOT) has updated both English and Spanish versions of the Emergency Response Guidebook (ERG). This manual is designed to help first responders in the Americas quickly identify emergency response procedures to deal with hazmat transportation accidents during the critical first 30 minutes. Some notable changes include: 1) adding a flow chart to show how to use the ERG2016; 2) expanding the table of markings, labels, and placards; 3) expanding the rail car and road trailer identification charts; 4) updating Tables 1 and



3 based on new Toxic Inhalation Hazard (TIH) data and reactivity research; 5) updating pipeline emergency response information; 6) adding information about Globally Harmonized System of Classification and Labeling of Chemicals (GHS) markings; 7) adding all new dangerous goods/ hazardous materials listed in United Nations (UN) Recommendations on the Transport of Dangerous Goods 19th revised edition; and 8) adding information on Emergency Response Assistance Plans (ERAP) applicable in Canada. Visit PHMSA's ERG webpage for more information at http:// www.phmsa.dot.gov/hazmat/outreach-training/erg

Recent Lessons Learned, Industry Events, Operating Experiences



Is taping over the outer border on an orange panel a regulatory compliant way to apply this specification marking? The black outer border on an orange panel must be visible and meet the size requirement of 15 mm (0.6 inches) outlined in 49 CFR 172.332(b). Maybe consider using good quality clear packing tape or providing your carrier with extra orange panels to use as replacements if needed (49 CFR 172.338).





New Online Course Available

We are pleased to add a new hazardous material employee transportation computer-based training designed specifically for the job functions performed by Radiological Control Technicians (RCT, HP, RP, RADCON). This course includes general information of the Department of Transportation (DOT) Hazardous Material Regulations (HMRs) and specializes in radiation and contamination controls for any type of radioactive material shipment. Successful participants will receive a certification stating the training meets the requirements of 49 CFR Part 172, Subpart H.

Recent Lessons Learned, Industry Events, Operating Experiences (Cont.)

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)

Waste, Radioactive material, excepted package, limited quantity, UN2910 Environmentally hazardous substances, solid, n.o.s., RQ, UN3077, (D008 Lead) Activated Lead

How many issues can you identify on this shipping paper excerpt? Even though Block #11 on this NRC Form 540 Uniform Low Level Radioactive Waste Manifest indicates to list the proper shipping name first in the basic description, will this sequence meet the DOT format requirement in 49 CFR 172.202? Not this time, the ID number should be placed first. Where should "RQ" go to indicate the presence of a hazardous substance? Not inside the description, but either before or after the

Can you find any issues with these placards? Let's first look at the top (Division 4.1 Flammable Solid) placard placed on top of other markings and on a non-contrasting background. Does this violate any plac-



basic description (172.203). Is the radioactive material proper shipping name missing any information? This should include the "whole" proper shipping name (missing "of material") as outlined in column 2 of the hazardous material table 172.101 (172.202). Where is the hazard class and where should it be placed? Again in 172.202, we find the hazard class is required and should be after the proper shipping name in the basic description.

ard visibility requirements? The placard should have been at least three (3) inches (76 mm) away from any markings [49 CFR 172.516(c)(4)] and have a dotted or solid line outer border to help contrast with the same color background [49 CFR 172.516(c)(7)]. Now looking at the bottom (Division 6.1 Poison) placard with different size identification numbers, are there any font requirements? ID numbers placed on a placard must meet the size [88 mm (3.5 inches)], font type [Alpine Gothic or Alternate Gothic #3], and color [black] requirements [49 CFR 172.503, 172.332 and 172.334].

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Latest Happenings in the Federal Register

DOT Annual 49 CFR Corrections

On November 23, 2015 (80 FR 72914), the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a final ruling in the federal register to correct editorial errors, make minor regulatory changes



and, in response to requests for clarification, improve the clarity of certain provisions in the Hazardous Materials Regulations (49 CFR Parts 171 – 180). The intended effect of this rule is to enhance the accuracy and reduce misun-derstandings of the regulations. A significant number of these corrections and clarifications originate from three recent final rules under the following dockets: PHMSA-2009–0063 (HM–250) [79 FR 40590]; PHMSA–2009–0095 (HM–224F)] [79 FR 46012]; and PHMSA–2013–0260 (HM–215M) [80 FR 1075]. This final rule is effective December 23, 2015.

DOT Prohibits Driver Coercion

On November 30, 2015 (80 FR 74695), the Federal Motor Carrier Safety Administration (FMCSA) published a final rulemaking in the



federal register to adopt regulations that prohibit motor carriers, shippers, receivers, or transportation intermediaries from coercing drivers to operate commercial motor vehicles (CMV) in violation of certain provisions of the Federal Motor Carrier Safety Regulations (FMC-SRs) in 49 CFR Parts 386 and 390 including drivers' hoursof-service (HOS) limits; the commercial driver's license (CDL) regulations; drug and alcohol testing rules; and the Hazardous Materials Regulations (49 CFR Parts 107-180). This rule includes procedures for drivers to report incidents of coercion to FMCSA, establishes rules of practice FMCSA will follow in response to reports of coercion, and describes penalties that may be imposed on entities found to have coerced drivers. This final rule is effective January 29, 2016.

NRC Miscellaneous 10 CFR Corrections



On December 01, 2015 (80 FR 74974), the Nuclear Regulatory Commission (NRC) published a final rule in the federal register amending 10 CFR Parts 1 - 171 to make miscellaneous corrections. These changes include renaming the Office of Information Services, renaming the Computer Security Office and removing it as a standalone office, capitalizing the words Tribe, Tribes, and Tribal, correcting a Web site address, correcting a misspelling, removing a submission requirement, correcting an email address, correcting a room number, removing a Federal Register notice requirement, and adding missing information collection references. This rule is effective December 31, 2015.

CMV Passenger Seat Belt Use

On December 10, 2015 (80 FR 76649), the FMCSA published a Notice of Proposed Rulemaking (NPRM) and request for comments in the federal register on FMCSA's proposal to revise the FMCSRs in 49 CFR 392.16 "Use of Seat Belts" by requiring that passengers in property-carrying commercial motor vehicles (CMVs) use the seat belt assembly whenever the vehicles are operated on public roads. This rule would hold motor carriers and drivers responsible for ensuring that passengers riding in the CMV are also using the seat belts required by the Federal Motor Vehicle Safety Standards (FMVSSs). Please submit comments by January 25, 2016.

EPA OSWER Name Change

On December 15, 2015 (80 FR 77575), the Environmental Protection Agency (EPA) published a final ruling in the federal register to change the name of the Office of Solid Waste and Emergency Response (OSWER) to the Office of Land and Emergency Management (OLEM) in 40 CFR Parts 1 - 761. This action is being taken to more accurately reflect the nature of the work that this office does to protect human health and the environment This rule is effective on December 15, 2015.





Latest Happenings in the Federal Register (cont.)

New Electronic Logging Device Rules

On December 16, 2015 (80 FR 78291), the FMCSA published a final rule in the federal register to amend the FMCSRs in 49 CFR Parts 385 – 395 to establish: Minimum performance and design standards for



hours-of-service (HOS) electronic logging devices (ELDs); requirements for the mandatory use of these devices by drivers currently required to prepare HOS records of duty status (RODS); requirements concerning HOS supporting documents; and measures to address concerns about harassment resulting from the mandatory use of ELDs. The effective date of this final rule is February 16, 2016 with a compliance date of December 18, 2017.

DOT Revises Bulk Explosive Transport

On December 21, 2015 (80 FR 79423), the PHMSA published a final ruling in the federal register to amend the HMRs in 49 CFR Parts 171 - 177 by establishing standards for the safe transportation of explosives on cargo tank motor vehicles and multipurpose bulk trucks transporting materials for blasting operations. This rulemaking is responsive to two (2) petitions for rulemaking submitted by industry representatives and mirror the majority of provisions contained in nine (9) widely-used longstanding special permits that have established safety records. Finally, this rulemaking addresses the construction of new multipurpose bulk trucks. This final rule is effective January 20, 2016.

Driver Random Testing Policy Change



On December 24, 2015 (80 FR 80446), the FMCSA published a notice of program change in the federal register

to announce reducing the minimum annual percentage rate for random controlled substances testing for drivers of commercial motor vehicles (CMVs) requiring a commercial driver's license (CDL) from the current rate of 50 percent of the average number of driver positions to 25 percent of the average number of driver positions. The new lower minimum annual percentage rate for random controlled substances testing is effective January 1, 2016.

NRC Requests Comments on 2 Draft NUREGs

On December 24, 2015, the NRC published two (2) notices in the federal register requesting comments on both draft NUREG/ CR-7206, "Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario" (80 FR 80400) and draft NUREG/ CR-7207, "Spent Fuel Transportation Package Response to the Newhall Pass Fire Scenario" (80 FR 80402). Please submit comments by February 22, 2016.

FMCSA Withdrawals Proposed Rule

On December 30, 2015 (80 FR 81503), the FMCSA published a notice in the federal register to withdraw its NPRM "Parts and Accessories Necessary for Safe Operation: Federal Motor Vehicle Safety Standards Certification for Commercial Motor Vehicles Operated by United States-Domiciled Motor Carriers" published on June 17, 2015 (80 FR 34588) which would have required each commercial motor vehicle (CMV) operated by a United States-domiciled (U.S.-domiciled) motor carrier engaged in interstate commerce to display a label applied by the vehicle manufacturer or a U.S. Department of Transportation (DOT) Registered Importer to document the vehicle's compliance with all applicable FMVSSs in effect as of the date of manufacture. The NPRM is withdrawn as of December 30, 2015.

OSHA Continues Beryllium Research

On December 30, 2015 (80 FR 81475), the Occupational Safety and Health Administration (OSHA) published a notice in the federal register to inform the general publice about scheduling an informal public hearing on February 29, 2016 concerning its proposed rule "Occupational Exposure to Beryllium and Beryllium Compounds" published in the Federal Register on August 7, 2015 (80 FR 47565).



Latest Happenings in the Federal Register (cont.)

Future Nuclear Waste Site Open Meeting

On January 12, 2016 (81 FR 1408), the Fuel Cycle Technologies, Office of Nuclear Energy, Department of Energy (DOE) published a notice in the federal register to invite the public to an open meeting held on January 20, 2016 to discuss next steps towards implementing a



consent-based siting process for nuclear waste storage and disposal facilities. DOE is implementing a consentbased siting process to establish an integrated waste management system to transport, store, and dispose of commercial spent nuclear fuel and high level defense radioactive waste. In a consent-based siting approach, DOE will work with communities, tribal governments and states across the country that express interest in hosting any of the facilities identified as part of an integrated waste management system. For more information, please visit http://www.energy.gov/consentbasedsiting

NRC Requests Comment on New BTP

On January 20, 2016 (81 FR 3166), the NRC published a notice in the federal register requesting comments on whether the NRC staff should formally document a position distinguishing contaminated materials from contaminated trash as described in Revision 1 of the Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP) dated February of 2015. The CA BTP provides acceptable methods that can be used to perform concentration averaging of Low-Level Radioactive Waste (LLRW) for the purpose of determining its waste class for disposal. Please submit comments by March 21, 2016.

FMCSA Proposes Safety Fitness Changes

On January 21, 2016 (81 FR 3561), the FMCSA published a NPRM in the federal register to amend the Federal Motor Carrier Safety Regulations (FMC-



SRs) 49 CFR Parts 350 - 395 to revise the current methodology for issuance of a safety fitness determination (SFD) for motor carriers. The intended effect of this action is to more effectively use FMCSA data and resources to identify unfit motor carriers and to remove them from the Nation's roadways. FMCSA will be accepting both initial comments and reply comments in response to this NPRM. Please send your initial comments on or before March 21, 2016 and reply comments on or before April 20, 2016.

PHMSA Adoption of Special Permits

On January 21, 2016 (81 FR 3635), the PHMSA published a final rule in the federal register amending the HMRs in 49 CFR Parts 107 – 180 to adopt provisions contained in 96 widely-used or long-standing special permits (DOT-SPs) that have an established safety record. The adopted amendments are intended to provide wider access to the regulatory flexibility offered in these 96 special permits and eliminate the need for numerous renewal requests. This final rule will become effective on February 22, 2016.

NRC Requests Comment Draft NUREG



On January 27, 2016 (81 FR 4680), the NRC published a notice in the federal register requesting comments on draft NUREG/ CR-7209 "A Compendium of Spent Fuel Transportation Package Response Analyses to Severe Fire Accident Scenarios." This report summarizes studies of rail and truck transport accidents involving fires, relative to regulatory requirements for shipment of commercial spent nuclear fuel (SNF). Please submit comments by March 28, 2016.

PHMSA Withdrawals Proposed Rule

On December 30, 2015 (80 FR 81501), the PHMSA published a notice in the federal register to withdraw the NPRM published January 27, 2011 (76 FR 4847) to stop the transportation of flammable liquid material in unprotected external product piping on Department of Transportation (DOT) specification cargo tank motor vehicles as mandated by the "Fixing America's Surface Transportation Act" or the "FAST Act". This NPRM is withdrawn as of December 30, 2015.





Frequently Asked Questions

Our FAQ topic for this quarter looks at Separation and Segregation requirements.

* Are there unique compatibility provisions for explosives to be transported on the same vehicle?

Reference # 00-0056, 08-0126, 08-0192, 10-0107, 11-0166, 11-0011 and 12-0064

Yes, different Class 1 explosive materials are governed by the compatibility table in 49 CFR 177.848(f) based on compatibility group and type.

* Can a dromedary unit be used for segregation?

Reference # 01-0280, 01-0294 and 10-0208

Yes, if the unit is attached to the cab of a tractor, then the tractor and attached trailer would be separate vehicles. But, the answer is "no" if the unit is on the same transport vehicle.

* Will a single cardboard box, palletizing and/or air space provide enough separation to prevent commingling?

Reference # 02-0142, 02-0310, 03-0023, 03-0146, 03-0120, 03-0300 and 04-0031

No, neither a single cardboard box, raising cargo on pallets or air space between incompatible cargo provides a sufficient barrier to prevent mixing of two hazardous materials in the event of leakage.

* Do I only compare the primary hazard classes for which packages are labeled or placard?

Reference # 03-0120, 03-0198, 03-0300, 04-0031, 04-0236, 05-0164, 08-0216, 09-0252, 13-0111 and 13-0173

No, hazmat employees (shippers, drivers, etc.) must be knowledgeable to prevent any forbidden materials on the same vehicle that could produce an unsafe condition during transportation per 173.21(e), 173.24(e)(4), 173.33(a)(2) and 177.848. Residues, subsidiary hazards, HMR exempt, consumer commodities and limited quantities must also be considered. To access any DOT letters of interpretation, go to: http:// www.phmsa.dot.gov/hazmat Then, click on: "Interpretations" Next, you can search by entering the reference number in the search box or search by the applicable regulatory section number, or search by the published date.

RCRA HW Determinations at 34% Noncompliance

In April 2010 EPA independent hired an (Industrial evaluator Economics) to determine the effectiveness of Hazardous Waste EPA's (HW) program under the Conservation Resource



and Recovery Act (RCRA) and to identify potential problems associated with compliance with the program. One of the many areas noted in the report was the noncompliance rate of HW determination – one of EPA's primary concerns. Based on a 10 year analysis across the US, the report indicated that the average non-compliance rate is 34% for RCRA HW determination. The top three reasons cited were:

1) Difficulty making waste determinations for listed waste

- 2) Reliance upon third parties
- 3) Lack of training/staff at the generators' facilities.

Energy*Solutions* offers a number of environmental training courses on the RCRA requirements in accordance with 40 CFR Part 261 including Waste Designation, RCRA Requirements for Satellite Accumulation Areas, and RCRA Container Waste Management. Our courses apply a systematic method to ensure that waste is properly identified and managed according to the RCRA rules. For more information, contact Energy*Solutions* and we will work with you to find the training that best fits your needs.

For the full EPA report titled "Hazardous Waste Determination Evaluation" go to http://www.epa.gov/ evaluate/compilation-evaluation-reports-waste-toxicsmonitoring-programs. Scroll down to Hazardous Waste Determination Evaluation.



February - June, 2016 Training Schedule

Course	Date	Location
IATA: Transportation of Dangerous Goods by Air Shipper Certification Training	February 23-25, 2016	Las Vegas, NV
Hazardous Materials Drivers Training	February 23, 2016	Richland, WA
Explosives Training for Shippers	February 25, 2016	Albuquerque, NM
Load Securement for Drivers and Traffic Personnel	February 25, 2016	Richland, WA
Federal Motor Carrier Safety Regulations for Managers & Supervisors	March 1-2, 2016	Richland, WA
Reasonable Suspicion Training for Supervisors	March 3, 2016	Richland, WA
Hazardous Material General Awareness Transportation Training	March 8, 2016	Richland, WA
Basic Level Transportation Training – Module 1 – Basic Hazardous Material	March 14-15, 2016	Richland, WA
Basic Level Transportation Training – Module 2 – Basic Hazardous Waste	March 16, 2016	Richland, WA
Basic Level Transportation Training – Module 3 – Basic Radioactive Material	March 16-17, 2016	Richland, WA
*Attend all three modules consecutively for \$1,55	0.00 (savings of \$600.00)	
Advanced Hazardous Waste Shipper Certification Training	March 15-17, 2016	Richland, WA
Load Securement for Drivers and Traffic Personnel	March 16, 2016	Richland, WA
Hazardous Materials Drivers Training	March 17, 2016	Richland, WA
Advanced Hazardous Waste Shipper Certification Training	March 22-24, 2016	Albuquerque, NM
Highway Route Control Quantity Training	March 23, 2016	Richland, WA
IATA: Transportation of Dangerous Goods by Air Shipper Certification Training	March 29-31, 2016	Los Alamos, NM
Hazardous Material General Awareness Transportation Training	April 5, 2016	Richland, WA
Advanced Radioactive Material Shipper Certification Training	April 5-7, 2016	Las Vegas, NV
Federal Motor Carrier Safety Regulations for Drivers	April 7, 2016	Richland, WA
Advanced Mixed Waste Shipper Certification Training	April 11-14, 2016	Richland, WA
Advanced Radioactive Material Shipper Certification Training	April 12-14, 2016	Albuquerque, NM
DOT/NRC Radioactive Waste Packaging, Transportation and Disposal Training	April 11-14, 2016	Surfside Beach, SC
Air Transport of Radioactive Materials Training	April 15, 2016	Surfside Beach, SC
Advanced Radioactive Material Shipper Certification Training	April 19-21, 2016	Richland, WA
Advanced Mixed Waste Shipper Certification Training	May 2-5, 2016	Albuquerque, NM
Federal Motor Carrier Safety Regulations for Drivers	May 3, 2016	Richland, WA
Load Securement for Drivers and Traffic Personnel	May 5, 2016	Richland, WA
Hazardous Material General Awareness Transportation Training	May 11, 2016	Richland, WA
DOT/NRC/EPA Hazardous Waste/Mixed Waste Packaging, Transportation and Disposal	May 17-20, 2016	Oak Ridge, TN
Basic Level Transportation Training – Module 1 – Basic Hazardous Material	May 23-24, 2016	Las Vegas, NV
Basic Level Transportation Training – Module 2 – Basic Hazardous Waste	May 25, 2016	Las Vegas, NV
Basic Level Transportation Training – Module 3 – Basic Radioactive Material	May 25-26, 2016	Las Vegas, NV
*Attend all three modules consecutively for \$1,55	0.00 (savings of \$600.00)	
Advanced Mixed Waste Shipper Certification Training	May 23-26, 2016	Aiken, SC
Hazardous Material General Awareness Transportation Training	June 1, 2016	Richland, WA
Federal Motor Carrier Safety Regulations for Drivers	June 2, 2016	Richland, WA
Load Securement for Drivers and Traffic Personnel	June 7, 2016	Richland, WA
DOT/NRC Radioactive Waste Packaging, Transportation and Disposal Training	June 6-9, 2016	Mt. Pleasant, SC
Hazardous Materials Drivers Training	June 9, 2016	Richland, WA
Air Transport of Radioactive Materials Training	June 10, 2016	Mt. Pleasant, SC
Federal Motor Carrier Safety Regulations for Managers & Supervisors	June 14-15, 2016	Richland, WA
IATA: Transportation of Dangerous Goods by Air Shipper Certification Training	June 14-16, 2016	Las Vegas, NV
Reasonable Suspicion Training for Supervisors	June 16, 2016	Richland, WA
Advanced Mixed Waste Shipper Certification Training	June 20-23, 2016	Las Vegas, NV
Advanced Mixed Waste Shipper Certification Training	June 27-30, 2016	Richland, WA

Class dates and locations are subject to change





Online Training

Energy*Solutions* offers many courses online. Online training is a cost effective alternative to classroom training. It is self-paced and flexible, allowing the user to complete the course at his or her convenience. Training materials and references are accessed from the website.

Upon successful completion of your online training and receipt of payment, Energy*Solutions* will provide a certificate indicating that you have completed the training.

How to Get Started:

- Call or e-mail a contact listed below.
- Provide payment (check or credit card).
- Receive an access code.

What you Will Need:

- Access to a computer.
- Ability to print PDF files.

Contacts:

Jennifer Keszler (509) 375-9507 jkeszler@energysolutions.com

Merrie Schilperoort (509) 375-9504 mcschilperoort@energysolutions.com

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Please visit our web site at www.energysolutionstraining.com for course descriptions, pricing, and registration forms. **Available Courses**

Air Transport of Radioactive Materials – \$525

FMCSR for Drivers - \$425

FMCSR for Managers and Supervisors - \$650

Hazardous Material General Awareness Transportation Training – \$425

General Packaging – \$425

Hazardous Material Drivers Training - \$325

HRCQ for Drivers - \$325

Load Securement for Drivers and Traffic Personnel – \$325

Transportation of Radioactive Materials for Drivers and Carriers – \$450

Basic IATA: Transport of Dangerous Goods by Air

- \$975 (includes current IATA Dangerous Goods Regulations)
- \$600 (without regulations)

(Just Released!)

NRC/DOT Radioactive Waste Packaging, Transportation and Disposal Training – \$1,295

Radiological Controls Technician (RCT) – \$425

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