

FlashPoints



Upcoming TSI Classes in Oklahoma City:

Transportation of Hazmat (49 CFR)
-Basic May 13-17, Sep 16-20
-Recurrent (Refresher) Jun 11-13

Air Transportation of Hazmat (ICAO/IATA) June 11-13, Sep 17-19

IMDG Code
Aug 13-16

Instructor Training
Sep 4-6

Cargo Tanks
Aug 19-23

Performance-Oriented Packaging June 25-27

Radioactive Materials
May 1-3, 2002 (*New date*)

Infectious Substances
Jul 24-25

Cylinders
Jul 30-Aug 1

Explosives
Sep 4-6

Customized and on-site training also available

For more information, or to receive a training brochure, please contact the TSI Hazardous Materials Division. Contact information is below.

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Don't Throw Out That Old 49 CFR

There's good stuff in there you might need again

Early April: Baseball's opening day, the first robin of Spring, and—hooray!—the new 49 CFR! Though Title 49 of the Code of Federal Regulations is officially published October 1st of each year, the Government Printing Office (GPO) printed edition is usually not available until Spring. Some commercial enterprises purchase the original document masters directly from the GPO so they too can print Parts 100-185 of 49 CFR, the Hazardous Materials Regulations (HMR), exactly as they are printed by the government. In the meantime, those who don't want to wait until the Spring to have a current set of regulations can do two things:

1. Pay attention to the "Final

Rule" changes RSPA makes to the HMR in the Federal Register and keep them handy or, 2. Buy a copy of the HMR from a commercial vendor that updates and prints the HMR as the rules change (there are various update and subscription services available as well as printed "early editions").

But if I didn't buy the October 1, 2001 HMR until April of 2002, have I been doing things illegally for the last six months by using the Oct 1, 2000, edition? Probably not. Although there were many, many changes to the HMR as of October 1, 2001, most of those changes did not have a mandatory compliance date until Oct. 1, 2002. (See the *FlashPoints* Summer 2001 edition

(49 CFR, continued on page 2)

Rulemaking Roundup

Here is a brief summary of the latest Final Rules and Proposed Rulemakings from the DOT's Research and Special Program Administration (RSPA) that affect the Hazardous Material Regulations (HMR). Dates and docket numbers are shown.

Final Rules

Mar. 5, HM-145M. Updates the hazardous substance list in 49 CFR 172.101, Appendix

A., based on EPA revisions.

Apr. 3, HM-215D. Consists of corrections and responses to petitions from when the first HM-215D final rule came out last summer. HM-215D deals with harmonizing the HMR with international requirements.

Notices of Proposed Rulemakings (NPRM)

Feb. 22, HM-218A. This docket covers the unloading of portable tanks while they're still on vehicles.

Feb. 26, HM-228. This is an *advanced* notice of proposed rulemaking seeking comments on how RSPA should modify and clarify the requirements for carriage of hazmat by aircraft.

(Rulemakings, continued on page 2)

(49 CFR, continued from page 1)

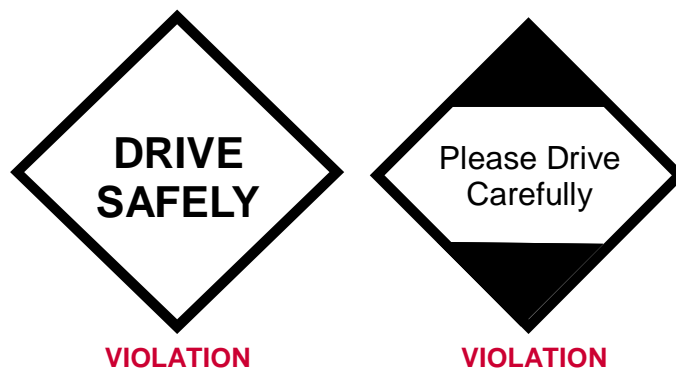
for a summary of the changes brought on by docket HM-215D.)

Now that you have your 2001 edition of the HMR you are all caught up, but that doesn't mean you should throw out the 2000 edition. You may need to refer to it again. Some changes to the HMR are grandfathered in, that is, lengthy transition periods are given to those who were already operating under the old regulations. This helps those who keep large stocks of labels, placards, or packaging on hand, or may have thousands of vehicles and tanks in their inventory that conform to a previous standard. However, even though you may still be able to do things the "old way", that does not mean the current regulations will continue to show the old way as an option.

Section 171.14 of the HMR is dedicated to transition periods. For example, paragraph 171.14(d)(3) indicates you can still use the old "Keep Away From Food" labels and placards for division 6.1, PG III, materials until Oct. 1, 2003. But if you didn't keep a copy of the HMR published before Oct. 1, 1999, then you don't have a copy of the specifications for the "Keep Away From Food" labels and placards (the current sections on labeling and placarding don't even mention "Keep Away From Food"). Similarly, 171.14(d)(4) now allows IM and IMO portable tanks to be transported in conformance with the special provision "T codes" of the 2000 edition of the HMR. (The T codes were rewritten for UN portable tanks in the 2001 HMR.) This transition period is until Oct. 1, 2010. So, if you want to apply the old T codes to IM and IMO portable tanks for the next eight years, you better hold on to your 2000 edition of the HMR. (The 2010 transition period applies only to the use of the old T codes, not to the use of IM and IMO portable tanks. These tanks may be used beyond 2010. See the new 173.32(c) for more on transition periods for the manufacture and use of non-UN portable tanks.)

Though 49 CFR 171.14 is dedicated to transition periods, it's not the only place in the HMR that you'll find mention of transition periods for the regulations. Some transition periods will be mentioned directly in the paragraph of the HMR

You should have gotten rid of these already:



Despite plenty of warning from the DOT and lots of publicity on this issue, many carriers are still displaying safety slogans in the shape of placards. 49 CFR 172.502(a)(2) prohibits the use of these signs since they can be confused with a hazmat placard. There had been a transition period that allowed these signs to be displayed if they were permanently mounted on vehicles (part of the placard flip kit), but that transition period expired on October 1, 2001. Carriers are now being cited for this violation!

(Rulemaking, continued from page 1)

Mar 14., HM-208D. This NPRM states there will be no reduction to registration fees this year. Be ready to pay the \$300 or \$2000 by July 1 if you are required to register (see 49 CFR 107.601).

Apr. 2, HM-224C. Proposed amendments for lithium batteries.

The comment periods for many of these proposed rulemakings are still open. To view or print each docket go to: <http://hazmat.dot.gov/rulemake.htm#nprm> ◆

that they pertain to. For example, in 171.14 there's not a *specific* reference to the transition periods for the use of the old subsidiary hazard labels and placards (no hazard class number in the bottom corner). But paragraphs 172.402(b) and 172.519(b)(4) do specifically mention these transition periods and the limitations that apply to them.

So start using the new 49 CFR and pay attention to the rule changes as they are happening (go to <http://hazmat.dot.gov/rulemake.htm#final> for copies of HMR final rule changes). When you do your Spring cleaning don't throw out that old 49 CFR. Keep at least one copy of it on a shelf. And since the CFR book jackets are a different color each year, before long you'll have a lovely rainbow pattern on your bookshelf—just pretend that brown is a color of the rainbow. ◆

Formaldehyde Solutions —When to Regulate

When you look up “Formaldehyde” in the Hazardous Material Table of 49 CFR (or the dangerous goods lists in international regulations) you will see two entries for formaldehyde solutions.



A DOT Clarification

“Formaldehyde solutions, flammable” (UN 1198) is used for those solutions that are flammable and corrosive, and “Formaldehyde solutions” (UN 2209) is used for those solutions which are just corrosive. This second proper shipping name is followed by “with not less than 25% formaldehyde” which indicates that solutions with less than 25% formaldehyde do not meet the definition of corrosive and therefore are not regulated under this proper shipping name. However, that does not mean they are not regulated. Formaldehyde solutions of less than 25% can still be quite noxious—which is one of the criteria for hazard class 9. Does this mean formaldehyde solutions of less than 25% are still regulated and, if so, at what point are they no longer noxious enough to be regulated? Here, in an excerpt from a recent letter of clarification the US DOT Office of Hazardous Materials Safety addresses these questions:

“...it is the opinion of this Office that formaldehyde solutions with less than 10% formaldehyde mixed with non-hazardous materials do not meet the definition of a class 9 hazardous material, and provided they do not meet any other hazard class, are not subject to the HMR. Formaldehyde solutions with 10% to 25% formaldehyde are regulated as class 9 hazardous materials when shipped by aircraft due to its noxious odor. The preferred proper shipping name is “Aviation regulated liquid, n.o.s.”

So, when traveling by air, 10% is the magic number to stay below if you don’t want your formaldehyde solution to be regulated as a hazardous material.

You can read more letters of clarification at the

US Air Force Issues New Hazmat Regulations For Military Aircraft

AFMAN 24-204(I) Now Effective



The US Air Force has updated its dangerous goods regulations. Preparing Hazardous

Materials For Military Air Shipments was revised and reissued December 11, 2001. There was a transition period between the old and new regulations which ended February 28, 2002. Also revised is the Air Force document name and number for this regulation. Air Force Joint Manual 24-204, AFJMAN 24-204, has become Air Force Interservice Manual 24-204, AFMAN 24-204(I). This document can be downloaded in its entirety at:

<http://www.afmc.wpafb.af.mil/hazmat>

Also available at this web site is a summary of the new changes found in AFMAN 24-204(I).

The US DOT Transportation Safety Institute can provide training on AFMAN 24-204(I) to non-DOD personnel (DOD personnel must attend DOD training). ♦

DOT Hazmat web site:

<http://hazmat.dot.gov> under the Rules & Regulations section. ♦

Notes on formaldehyde solutions from TSI:

- Formaldehyde is often purchased in a solution called “formalin”. Formalin users should be aware that full-strength formalin (which is flammable and corrosive) is typically a 37% formaldehyde solution to begin with (100% formaldehyde would be a gas not a liquid). So if you had a 25% formalin solution, you would only have about a 9% formaldehyde solution and would not be regulated for transportation (provided your formaldehyde solution doesn’t meet the definition of any other hazard class).
- We have seen that when traveling by air, formaldehyde solutions 10% to 24.9% are in hazard class 9. But what about the other cutoff point? When does a formaldehyde solution go from being flammable and corrosive (UN 1198) to just corrosive (UN 2209)? Well, formalin (37% formaldehyde) typically has a flashpoint of 140°F (60°C). A flashpoint of 141°F (60.5°C) is the upper limit for hazard class 3, flammable liquids. So diluting formalin with water by just a little (amounts vary with size of receptacle and original flashpoint) can eliminate the flammability hazard.

New “Air Eligible” Marking Created For Hazmat by Air

In the 2003-2004 edition of the ICAO *Technical Instructions* there will be a new marking requirement that indicates a hazmat package is eligible for air transportation.



The future “Air Eligible” marking

This “Air Eligible” marking, featuring the image of an aircraft in a circle, will be a certification that the package not only meets the normal packaging requirements for hazmat transportation but that it also meets the unique pressure requirements for hazmat packages that travel by air. Too often the inner receptacles of hazmat packages start to leak while in transit because they were not designed to stand up to the pressure changes of air transportation or they were not sealed properly. Many shippers seem to believe that the purchase and use of UN packaging automatically meets the requirements for all modes of transportation. This is not the case. Some packages are not manufactured to meet the specified air pressure standards (see ICAO 4;1.1.6 / IATA 5.0.2.9 / 49 CFR 173.27(c)). Other times, shippers misuse packaging that is rated for air transport or they substitute their own inferior inner receptacles for the ones that came with the package.

Though originally designed for combination packages containing liquids, it is expected that ICAO will apply the “air eligible” marking requirement to all air hazmat packages with the exception of excepted quantities. A one-year transition period is planned, making the new marking mandatory starting Jan. 1, 2004. We will address the specifics of this marking in another article later this year. ♦

Clear on Canada’s “Clear Language” Regulations?



Transport Canada—the Canadian DOT—has made available its latest “clear language” dangerous good regulations. Both the current and the clear language versions of the Transportation of Dangerous Goods Regulations (TDG) document are available at:

<http://www.tc.gc.ca/tdg/regulations.htm>

The new clear language TDG regulations go into force on August 15, 2002. Of particular interest to US shippers and carriers will be Sections 9.1 and 10.1 which deal with “Transporting Dangerous Goods from the United States into or through Canada” by road and by rail. This is where the TDG allows shipments to be made under 49 CFR—with some additional requirements, of course. ♦

He'll do what
you do.
Buckle up.



IMDG Code Update



As mentioned in previous editions of *FlashPoints*, the IMO has made available a CD containing Volumes 1 and 2 of the 2000 edition of the IMDG Code incorporating the consolidated *errata and corrigenda* (errors and corrections). These CD's are available free to anyone who purchased the

books from the IMO. If you purchased your books from another vendor, ask that vendor to contact IMO and request the CD's. The IMO contact is:

Mark Combe
Sales & Marketing
Tel: 44 20 7436 4096
Fax: 44 20 7587 3241
Email: mcombe@imo.org

Students who attended an IMDG Code class at TSI—where each student receives and keeps the latest IMDG Code books—should contact Jon Carter if they would like to have a CD sent to them (Jon.Carter@tsi.jccbi.gov). ♦

IATA Update

The latest addendum to the 2002 edition of the IATA Dangerous Goods Regulations (containing corrections) is available on the internet at:

<http://www.iata.org/cargo/dg/>

Scroll down to the very bottom of the page to find it. Also available on this web site are copies of presentations given at a recent IATA Dangerous Goods Conference. ♦

