

KEEPING YOU INFORMED OF REGULATORY CHANGES & UPDATES IN THE TRANSPORTATION INDUSTRY

Important Dates to Remember

January 1, 2022 — Begin using the 2020 Edition IMDG Code Amendment 40-20.

January 01, 2023 — Begin IATA Competency-based Training Standards.

January 01, 2025 — Begin using updated IATA Shipper's Declaration forms.



New Nuclear Power Video

The *American Nuclear Society (ANS)* recently added an article about a new video outlining the benefits of nuclear power. The video is very educational and enlightens the viewer on the history, safety, and misconceptions around this important source of carbon-free electricity production. *Kite & Key Media* published "The Green Atom" video on [YouTube](#) for everyone to watch and share. Kite & Key Media also has the [video transcript](#) available for download which also includes a list of their research sources and bonus material. Our industry needs more material like this to help promote and tell our side of the story which most of us would say is a great source of power and safe place to work.

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NRC Updates Advanced Notification Designee List

The Nuclear Regulatory Commission (NRC) has updated the list of individuals to receive advance notification of radioactive material and nuclear material shipments required by either 10 CFR Part 37 (Category 1 and 2), Part 71 (HRCQ) or Part 73 (Spent Nuclear Fuel) on **September 03, 2021**. This list of States, Territories and Participating Tribes designees can be downloaded from the NRC website at <https://scp.nrc.gov/special/designee.pdf>.

DOT CHART 17
Hazardous Materials Markings,
Labeling and Placarding Guide

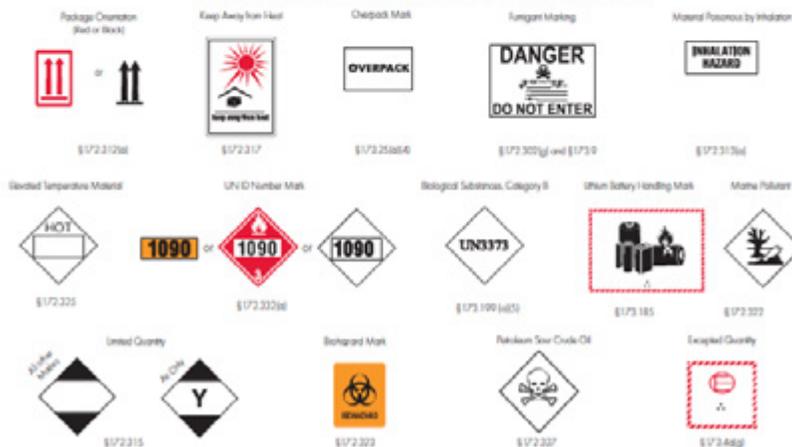
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Refer to 49 CFR, Part 172:
Marking - Subpart D
Labeling - Subpart E
Placarding - Subpart F



NOTE: This document is for general guidance only and should not be used to determine compliance with 49 CFR, Parts 100-185.

HAZARDOUS MATERIALS MARKINGS



PHMSA Updates DOT Chart

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has issued the 17th edition of their DOT Chart. This "Hazardous Materials Markings, Labeling and Placarding Guide" assists shippers, carriers, and other stakeholders to quickly access information regarding hazardous materials markings, labels and placards.

There are many updates to the marking examples on the front page, including: 1. Removing the Consumer Commodity/Other Regulated Material - Domestic "ORM-D" markings, Lithium Battery handling "Caution" marking, and Marking of IBCs example; and 2. Adding more Bulk ID Number examples, Petroleum Sour Crude Oil example, and Biohazard Mark example. ORM-D has been deleted from the Placarding Table 2 on page 4.

You can download the DOT Chart 17 here. It is also available as a free mobile app.

IATA New Competency-based Training

The International Air Transport Association (IATA) is adding a mandatory training assessment to ensure everyone involved in the transport of Dangerous Goods (DG) is competent. The new assessment will need to be performed and in everyone's training records by January 1, 2023. After the initial assessment, an assessment is also required at each recurrent training period (at least once every 24 months). The record will include a hands-on assessment

documenting each function a person is responsible to perform. This will be like a Job Performance Measure (JPM), On-the-Job Training (OJT), or a Training Performance Evaluation (TPE). An assessment is necessary in addition to a fundamental training and exam on the overall requirements in the IATA Dangerous Goods Regulations (DGR) because the assessment is to ensure personnel are competent with specific facility equipment, local procedures and policies, packaging,

package communications, shipping paperwork (carrier checklists, airway bills and shipper's declarations), and working with the carrier. The requirements of the new assessment are in Section 1.5 of the 2021 edition. Plus, IATA has included a thorough overview of the assessment in Appendix H. If you have not started updating your training program to include the new IATA assessment, time is ticking with about a year left to comply.

Barnwell Updates Acceptance Criteria Procedures



The Barnwell Waste Management Facility Site has issued Revision 26 of their Disposal Criteria, also known as EnergySolutions procedure S20-AD-010.

This waste acceptance document is for all Atlantic Compact licensees shipping radioactive waste for disposal to Barnwell, South Carolina (SC DHEC License No. 097). There are numerous miscellaneous amendments, which are easily found using the revision bars on the right-hand side of this document. This procedure also includes updates

to match NRC's NUREG/BR-0204 Revision 3 to the Uniform Low-Level Radioactive Waste Manifest Forms and detailed instructions to fill out each manifest form.

The Barnwell Processing Facility has also revised its Radioactive Material Acceptance Criteria procedure (DF-AD-009 Rev. 18) under SC DHEC License No. 287-04 for the same reasons. Both updated Acceptance Criteria procedures can be downloaded from the [EnergySolutions Customer Portal](#).

Type B Packaging Downgrade Options

Got an NRC certified Type B package and now you need to ship it as something else? Both the NRC and DOT have details on how to do this.

In their respective guidance documents (NRC Information Notice No. 90-82 and DOT Letters 05-0310 & 16-0133), they ask the shipper to cover up any packaging markings which may indicate it is a Type B package. This includes the radiation (trefoil) symbol (49 CFR 172.310 & 172 Appendix B), the package type i.e. "Type B(U)" (49 CFR 172.310), the packaging certification (NRC certificate of compliance "CoC" number) i.e. "USA/9204/B(U)-96" (49 CFR 173.471), and the manufacturer information plate (10 CFR 71.85).

If downgrading to a Type A package, they also ask the shipper to ensure all DOT 49 CFR requirements are met for a Type A package. This would include markings: "USA DOT 7A Type A" (178.350), and "Shipper's (person certifying the package) Name & Address" (178.350 & 178.3). They also ask the shipper to have documentation showing how the package meets all the Type A packaging and package requirements outlined throughout 49 CFR



Type B downgrade to Type A



Type B downgrade to General Design

(172.101, 173.24, 173.24b, 173.403, 173.410, 173.412, 173.415, 173.461(a), 173.465, 173.474, 173.475, 178.3 & 178.350).

If downgrading to a General Design package, there are no documentation requirements and only a shipper's responsibility to ensure the package will meet 49 CFR 173 Subpart B and 173.410 requirements.

Marking, Labeling, Placard Color Verification

Have you ever thought about how someone can verify the DOT color specifications outlined in the Hazardous Material Regulations "HMRs" (49 CFR 172 Subparts D, E & F)? Years ago, the Hale Color Charts were the golden standard to visually see the allowed color variations for each color specified in 49 CFR 172 Appendix A.

Unfortunately, the Hale Color Charts are no longer produced. In 49 CFR 172.407(d)(4)(ii), we are told color charts conforming to Appendix A are on display at the Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 2nd Floor, 1200 New Jersey Avenue SE., Washington, D.C. 20590-0001. Traveling to D.C. may not be a practical option for most shippers.

Another option is the Pantone® color system mentioned in 49 CFR 172.407(d)(5). Again, only codes are used to describe the colors, but we can input these numbers in the search feature on the [Pantone® website](https://www.pantone.com) to see

the HMRs desired color (but not the allowed color tolerances). One thing to note, you will need to leave off the "U" and just enter the color number. The "U" stands for printing on uncoated paper, which gives more of a matte finished product. To verify the color, only the color number (i.e. "186" for Red) is needed. The following list is from 49 CFR 172.407(d)(5):

- ◆ Red - Use PANTONE® 186 U
- ◆ Orange - Use PANTONE® 151 U
- ◆ Yellow - Use PANTONE® 109 U
- ◆ Green - Use PANTONE® 335 U
- ◆ Blue - Use PANTONE® 285 U
- ◆ Purple - Use PANTONE® 259 U

<p>CLASS 1 Explosives: Divisions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6</p> <p>§172.411</p>	<p>CLASS 2 Gases: Divisions 2.1, 2.2, 2.3</p> <p>§172.405b), §172.415, §172.416, §172.417</p>	<p>CLASS 3 Flammable Liquid</p> <p>§172.419</p>	<p>CLASS 4 Flammable Solid, Spontaneously Combustible, and Dangerous When Wet: Divisions 4.1, 4.2, 4.3</p> <p>§172.420, §172.422, §172.423</p>	<p>CLASS 5 Oxidizer, Organic Peroxide: Divisions 5.1 and 5.2</p> <p>§172.426, §172.427</p>
<p>* Include compatibility group letter. ** Include division number and compatibility group letter.</p>				
<p>CLASS 6 Poison (Toxic), Poison Inhalation Hazard, Infectious Substance: Divisions 6.1 and 6.2</p> <p>§172.223, §172.405(d), §172.429, §172.430, §172.432</p>	<p>CLASS 7 Radioactive</p> <p>§172.436, §172.438, §172.440, §172.441</p>	<p>CLASS 8 Corrosive</p> <p>§172.442</p>	<p>CLASS 9 Miscellaneous Hazardous Material</p> <p>§§172.446, §172.447</p>	<p>Cargo Aircraft Only</p> <p>§172.448</p> <p>Empty Label</p> <p>§172.450</p>

Recent Lessons Learned, Industry Events, and Operating Experiences



Mischievous Markings! Should gray tape be used to hold an orange panel to the trailer frame? Hopefully you said, "No!" We typically only recommend good quality clear packing tape to ensure the orange panel's outer border is visible and to ensure the color and size specifications outlined in 49 CFR 172.332(b)(1) are maintained. Also, did you notice anything missing? Did you say, "Where are the placards?" Low Specific Activity (LSA) shipped in a general design package requires placards. Placards were required on both the bulk package per 49 CFR 172.504 & 172.514, and the trailer per 172.504 & 172.516(a). These placards are also required to be displayed in proximity to the orange panels per 172.334(f).



Box Bevel? Is one strap, up and over a box good enough? Not in this case! The blue shipping container (BOX 2) is leaning a little. These boxes weighed about 15,000 lbs. each, so according to 49 CFR 393.106(d), the aggregate Working Load Limit (WLL) of the tiedown(s) should be at least one-half times the weight of article of cargo or about 7,500 lbs. The strap's WLL is 5,400 lbs., so at least two (2) straps were required in this situation. On another note, there was nothing preventing movement in the horizontal directions per 49 CFR 393.102. Unfortunately, one chain is not a complete load securement system to prevent movement side to side, nor back and forth. Please make sure your load securing plans meet "all" of 49 CFR 393 Subpart I (393.100 – 393.136).



Placard Placement!?! Did you have to tilt your head a little to see this placard? Make sure your placards are in fact displayed horizontally per 49 CFR 172.516(c)(5). Also, does a placard need to contrast with its background? Hopefully, you said, "Yes!" If the placard does not contrast with the background, then we need to add an outer border per 49 CFR 172.516(c)

(7). The outer border can be either a dotted or solid line. Be sure when adding an outer border that the dimension of 12.5 mm is maintained from the outer edge of the outer border (outside edge of the placard) to the outer edge of the inner border on each side per 172.519(c)(1).

FAQ: Proper Shipping Name selection (49 CFR 172.101)

If a material contains mostly one chemical, do I use the technical chemical name as the proper shipping name (PSN) or do I use a generic hazard class PSN?

Reference # 10-0078

If the impurities do not sufficiently change the main component's hazards, then use the technical chemical in column 2 of the Hazardous Material Table (HMT) 49 CFR 172.101 over the generic n.o.s. PSN.

If a package contains more than one inner packaging of different hazardous material, do I assign one generic PSN or a PSN describing each individual inner packaging?

Reference # 09-0307

Each inner packaging will be assigned its own PSN, hazard class, UN ID number and Packing Group as appropriate. The outer package will be marked and labeled to indicate each different type of hazardous material.

Do I have to include the word "Waste" preceding a PSN for a universal waste, Polychlorinated Biphenyl (PCB) waste or waste from a Very Small Quantity Generator (VSQG) that does not meet the Hazardous Waste definition in 49 CFR 171.8 because of the 40 CFR Part 262 EPA manifesting exemption for these type wastes?

Reference # 04-0186, 08-0123, 15-0227

No. These wastes do not meet the DOT definition for a hazardous waste.

When is it appropriate to include the word "solution" or "mixture" at the end of a PSN?

Reference # 09-0069, 09-0056, 08-0123

The word "solution" or "mixture" must only be included when shipping a hazardous material listed in column 2 of the HMT that also contains non-hazardous material, like soil, water, etc.

How do I choose a PSN for a hazardous material with more than one hazard class or division?

Reference # 04-0058, 09-0156

First, find the primary and subsidiary hazards using 49 CFR 173.22a. Use the primary hazard class to find the appropriate generic hazard class PSN that also includes the subsidiary hazards. For example, the primary hazard class for a mixture that exhibits a Hazard Class 8 Packing Group II and a Hazard Class 3 Packing Group II is Class 3. The appropriate PSN would be "flammable liquids, corrosive, n.o.s."

DOT letters of interpretation can be found at: <https://www.phmsa.dot.gov> Click on: "Regulations and Compliance" then "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. Do not forget that you have these internet addresses (and many more) in a PDF on our training class e-media handout.



SEASONAL SAFETY

Fall is around the corner; so are slippery wet leaves, so tread carefully! Also, be prepared for hurricane season and other severe weather changes by visiting <https://www.ready.gov/hurricanes>. Maintain your questioning attitude in every situation, especially asking, "What could be the worst thing that could happen?!"



THE LATEST HAPPENINGS

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FMCSA Updates Level VI OOSC Reference

On July 06, 2021 (86 FR 35443), the Federal Motor Carrier Safety Administration (FMCSA) published a Notice of Proposed Rulemaking (NPRM) in the federal register proposing to amend its Hazardous Materials Safety Permits regulations in 49 CFR Part 385 to incorporate by reference the updated Commercial Vehicle Safety Alliance (CVSA) handbook containing inspection procedures and Out-of-Service Criteria (OOSC) for inspections of shipments of Transuranic Waste (TRU) and Highway Route Controlled Quantities of radioactive material (HRCQ). The OOSC provide enforcement personnel nationwide, including FMCSA's State partners, with uniform enforcement tolerances for inspections. Currently, the regulations reference the April 1, 2019, edition of the handbook. Through this document, FMCSA proposes to incorporate by reference the April 1, 2021 edition. Comments on this document must be received on or before August 5, 2021.

FMCSA Part 393 Windshield Area Revision

On July 06, 2021 (86 FR 35449), the Federal Motor Carrier Safety Administration (FMCSA) published a Notice of Proposed Rulemaking (NPRM) in the federal register proposing to amend the Federal Motor Carrier Safety Regulations (FMCSRs) in 49 CFR Part 393 to increase the area within which certain vehicle safety technology devices may be mounted on the interior of the commercial motor vehicle (CMV) windshields. In addition, FMCSA proposes to add items to the definition of vehicle safety technology. This NPRM responds to a rulemaking petition from Daimler Trucks North America (DTNA). Comments must be received on or before August 5, 2021.

FMCSRs 2021 Technical Corrections

On July 07, 2021 (86 FR 35633), the Federal Motor Carrier Safety Administration (FMCSA) published a final rule in the federal register to amend its regulations in 49 CFR Parts 381 - 391 by making technical corrections throughout

the Federal Motor Carrier Safety Regulations (FMCSRs). FMCSA is making minor changes to correct inadvertent errors and omissions, to remove or update obsolete references, and to improve the clarity and consistency of certain regulatory provisions. FMCSA is also making nondiscretionary, ministerial changes that are statutorily mandated and changes that merely align regulatory requirements with the underlying statutory authority. Finally, this rule contains two minor changes to FMCSA's rules of agency procedure or practice that relate to separation of functions and allowing FMCSA and State personnel to conduct off-site compliance reviews of motor carriers following the same safety fitness determination criteria used in on-site compliance reviews. This final rule is effective July 7, 2021, except for amendatory instruction 31 which is effective September 7, 2021.

Federal Semi-Annual Regulatory Agendas - July 2021

On July 30, 2021, the Department of Labor (86 FR 41242); the Department of Transportation (86 FR 41248); the Department of Homeland Security (86 FR 41226); the Environmental Protection Agency (86 FR 41276); and the Nuclear Regulatory Commission (86 FR 41368) published their respective notices in the federal register making available their portion of the semi-annual Unified Agenda of Federal Regulatory and Deregulatory Actions.

NRC Miscellaneous 10 CFR Updates

On August 09, 2021 (86 FR 43397), the Nuclear Regulatory Commission (NRC) published a final rule in the federal register amending its regulations to make miscellaneous corrections in 10 CFR Parts 2 - 110. These changes include correcting mailing addresses, typographical errors, grammatical errors, references, spelling, agency names, and office titles; removing outdated reporting requirements; clarifying language; adding metric units; and inserting missing language. This document is necessary to inform the public of these non-substantive amendments to the NRC's regulations. This

final rule is effective on September 8, 2021.

On August 24, 2021 (86 FR 47209), the NRC published a correction in the federal register for this final rule to correct inadvertent errors. The correction takes effect on August 24, 2021.

DOT Proposes 49 CFR Updates

On August 10, 2021 (86 FR 43844), the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a Notice of Proposed Rule Making (NPRM) in the federal register to amend the Hazardous Materials Regulations (HMRs) to maintain alignment with international regulations and standards by adopting various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. Additionally, PHMSA proposes an amendment to the HMRs that would allow for better alignment with Transport Canada's Transportation of Dangerous Goods (TDG) Regulations. Comments must be received by October 12, 2021. To the extent possible, PHMSA will consider latefiled comments while a final rule is developed.

FMCSA Record Retention Survey

On August 24, 2021 (86 FR 47365), the Federal Motor Carrier Safety Administration (FMCSA) published a notice in the federal register requesting information and answers to eight (8) questions to assist FMCSA in reviewing records retention requirements in 49 CFR Part 379 of the Federal Motor Carrier Safety Regulations (FMCSRs). Please send comments on or before September 23, 2021.

FMCSA Revising CDL Records

On September 03, 2021 (86 FR 49595), the Federal Motor Carrier Safety Administration (FMCSA) published a notice in the federal register requesting public comment on approval to revise and renew an Information Collection Request (ICR) titled, "Commercial Driver Licensing and Test Standards," due to an increase in the number



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of commercial driver's license records. This ICR is needed to ensure that drivers, motor carriers and the States are complying with notification and recordkeeping requirements for information related to testing, licensing, violations, convictions, and disqualifications and that the information is accurate, complete, transmitted, and recorded within certain time periods as required by the Commercial Motor Vehicle Safety Act of 1986 (CMVSA), as amended. Please submit your comments to the FMCSA on or before November 2, 2021.

EPA Pyrolysis & Gasification Proposed Rule On September 08, 2021 (86 FR 50296), the Environmental Protection Agency (EPA) published a Advance Notice of Proposed Rulemaking (ANPRM) in the federal register requesting public comment to assist in the potential development of regulations for pyrolysis and gasification units that are used to convert solid or semi-solid feedstocks, including solid waste (e.g., municipal solid waste, commercial and industrial waste, hospital/medical/infectious waste, sewage sludge, other solid waste), biomass, plastics,

tires, and organic contaminants in soils and oily sludges to useful products such as energy, fuels and chemical commodities. Pyrolysis and gasification are often described as heat induced thermal decomposition processes. Through recent requests for applicability determinations, it appears that pyrolysis and gasification processes are more widely being used to convert waste into useful products or energy. Comments must be received on or before November 8, 2021.

2021-2022 Commercial Open-Enrollment Training Schedule

Radioactive Class 7 Material Packaging, Transportation & Disposal Regulatory Compliance Courses

All DOT/NRC training courses meet the requirements of 49 CFR Part 172 Subpart H and NRC IE Notice 79-19

COURSE	DATE	CEU**	TUITION	LOCATION
2021				
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Oct. 17-20	32	\$1,995	Hilton Head, SC
Air Transport of Radioactive Materials (IATA/DOT)	Oct. 21	8	\$985*	Hilton Head, SC
DOT/NRC/EPA Hazardous Waste/ Mixed Waste Packaging, Transportation & Disposal	Nov. 7-11	40	\$2,195	Clinton, TN
Bear Creek Operations (BCO) Facility Tour	Nov. 10	--	\$0	Oak Ridge, TN
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Dec. 5-8	32	\$1,995	Henderson, NV
Air Transport of Radioactive Materials (IATA/DOT)	Dec. 9	8	\$985*	Henderson, NV
2022				
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Feb. 14-17	32	\$2,045	Mount Pleasant, SC
Air Transport of Radioactive Materials (IATA/DOT)	Feb. 18	8	\$985*	Mount Pleasant, SC
DOT/NRC/EPA Hazardous Waste/ Mixed Waste Packaging, Transportation & Disposal	Mar. 21-25	40	\$2,195	Salt Lake City, UT
Clive Disposal Site Facility Tour	Mar. 24	--	\$0	Clive, UT
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Apr. 25-28	32	\$2,045	Surfside Beach, SC
Air Transport of Radioactive Materials (IATA/DOT)	Apr. 29	8	\$985*	Surfside Beach, SC
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Jun. 6-9	32	\$2,045	San Diego/Del Mar, CA
Air Transport of Radioactive Materials (IATA/DOT)	Jun. 10	8	\$985*	San Diego/Del Mar, CA
DOT/NRC/EPA Hazardous Waste/ Mixed Waste Packaging, Transportation & Disposal	Jul. 11-15	40	\$2,195	Clinton, TN
Bear Creek Operations (BCO) Facility Tour	Jul 14	--	\$0	Oak Ridge, TN

** If an IATA class is taken in conjunction with the DOT/NRC class during the same week, there is a \$280 multi-class discount*

*** The American Academy of Health Physics (AAHP) has pre-approved continuation education credit hours for these courses*