

Q2 2017 NEWS

EPA Generator Improvements Final Rule Overview

The Environmental Protection Agency published a final rule in the November 28, 2016 federal register (81 FR 85732) to revise the hazardous waste generator regulations in 40 CFR Parts 257 – 279 by making them easier to understand and providing greater flexibility in how hazardous waste is managed to better fit today's business operations.

Several of the revisions to the hazardous waste generator regulations are more stringent. Therefore, states that have adopted the base RCRA program will be required to modify their hazardous waste programs to incorporate equivalent provisions if these standards are finalized. These include the following:

1. Requiring Small Quantity Generators (SQGs), Large Quantity Generators (LQGs) and transfer facilities to better define the risks of hazardous wastes accumulated in tanks, containers, drip pads, and containment buildings, as well as when hazardous waste is accumulated in satellite accumulation areas (i.e. add EPA waste codes to the hazardous waste marking);
2. Requiring LQGs to notify EPA or their authorized state when they plan to close their facilities;
3. Requiring SQGs to re-notify every four years;
4. Requiring LQGs to submit a biennial report that identifies all of the hazardous wastes generated in the calendar year, not just for the months the facility was an LQG;
5. Requiring LQGs updating their contingency plans to prepare a quick reference guide for their contingency plans to assist responders in an emergency and include Local Emergency Planning Committees (LEPC); and
6. Requiring facilities that recycle hazardous waste without storing the waste to prepare and submit a Biennial Report.

Three of the final revisions are less stringent than the current hazardous waste regulations. Thus, authorized states may, but are not required to, adopt these changes. These revisions include the following:

1. Allowing Very Small Quantity Generators (VSQGs) to voluntarily send hazardous waste to LQGs under the control of the same person; [Note: This final rule changes the name of a Conditionally Exempt Small Quantity Generator (CESQG) to a VSQG]



2. Allowing LQGs to apply for a waiver from their local fire department to accumulate ignitable and reactive wastes within the 50 foot facility boundary; and
3. Allowing VSQGs and SQGs to voluntarily maintain their existing regulatory status if they have an episodic (unusual, unplanned) event that generates additional amounts of hazardous waste which would have resulted in them moving into a higher generator category for a short period of time, so long as they comply with specified conditions.
4. Repeating the prohibition for generators from sending hazardous liquids to landfills;
5. Replacing the list of specific data elements with a requirement to complete and submit all data elements required in the Biennial Report form;
6. Deleting the performance track and laboratories excellence and Leadership program (XL Project) regulations; and
7. Technical corrections and conforming changes to various parts of the RCRA regulations.

This final rule also includes several revisions that are neither more nor less stringent. Thus, authorized states may, but are not required to, adopt these changes. These include:

1. Reorganizing the hazardous waste generator regulations to make them more user-friendly;
2. Defining central accumulation area and the generator categories;
3. Mixing a nonhazardous waste with a hazardous waste;

The EPA has a webpage that provides a summary, history, factsheet, FAQs and webinar notes. *For more information, click here: [EPA Final Rule Summary](#)* The effective date of this final rule was May 30, 2017. These RCRA final regulations will not be effective in most states until the authorized state adopts the revised regulations, and therefore, most generators will have ample time to plan for these RCRA marking and labeling changes before they become effective.

NOVEMBER 6, 2017

DOT/NRC/EPA HAZARDOUS WASTE/MIXED WASTE PACKAGING, TRANSPORTATION & DISPOSAL

We have recently added this class based on your feedback. Our course objective is to learn how to characterize, package, transport and dispose of any type of hazardous material and hazardous waste using the federal regulations and disposal/processor waste acceptance criteria. Training will be conducted in our new Oak Ridge, TN office location on Lafayette Drive inside the SAIC building. **A tour of our Bear Creek Processing Facility is also included during the week, so you can meet the folks and see the technology that will help you prepare your hazardous material to its final disposition.**

We look forward to seeing you in class!

DOT Amends the HMRs

The Pipeline and Hazardous Materials Safety Administration (PHMSA) published a final rule in the March 30, 2017 Federal Register (82 FR 15796) amending the Hazardous Materials Regulations (HMR) in 49 CFR Parts 107–180 to maintain consistency with international regulations and standards. The effective date was March 30, 2017 with a voluntary compliance date of January 1, 2017, and delayed compliance with these amendments begins January 1, 2018. Below is a list of notable amendments to the HMR in this final rule:

- **Incorporation by Reference:** incorporates by reference the newest versions of various international hazardous materials standards.
- **Hazardous Materials Table (HMT):** amends the 49 CFR 172.101 Hazardous Materials Table (HMT) to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, and passenger and cargo aircraft maximum quantity limits.

* **“UN 3507, Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile-excepted”** revising the primary hazard class from Class 8 to Division 6.1 and subsequently adding the Class 8 hazard as a subsidiary hazard label code in column (6).

* **“UN 2977, Radioactive material, uranium hexafluoride, fissile” and “UN 2978, Radioactive material, uranium hexafluoride non fissile or fissile excepted”** revising the vessel stowage location “A” with “B” to column (10A) and adding code “40,” which indicates that the material must be stowed clear of living quarters, to column (10B) to coincide with adding Division 6.1 as a subsidiary hazard.

* **Special Provision 238:** revising by permitting the packaging to contain “absorbent” or “adsorbent” material where the previous requirement permitted “absorbent” material only for the shipment of neutron radiation detectors.

* **Special Provision 369:** revising the classification criteria, consignment instructions and transport conditions for “UN 3507, Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile excepted” by clarifying that this radioactive material in an excepted package is classified as Division 6.1 with radioactive and corrosive subsidiary risks.

- **Subsidiary Placarding for Uranium Hexafluoride: adds Division 6.1 poison or toxic placards.**

Transport conditions for certain specially designed **radiation detectors** containing a Division 2.2 (Nonflammable) gas: revisions 49 CFR 173.310: [1] In the section header, clarify that Division 2.2 gases must be in non-refillable cylinders; [2] in paragraph (b), increase the maximum design pressure and increase the capacity; [3] in new paragraph (d), require specific emergency response information to accompany each

shipment and be available from the associated emergency response telephone number; [4] in new paragraph (e), require that transport in accordance with this section be noted on the shipping paper; and [5] in new paragraph (f), except radiation detectors, including detectors in radiation detection systems, containing less than 50 ml (1.7 fluid ounces) capacity, from the requirements of the subchapter if they conform to paragraphs (a) through (d) of this section.

Labeling Provisions: removes the existing inner border size requirements for reduced dimension labels and authorizing the entire label to be reduced proportionally and extends the transition date provided in 49 CFR 172.407(c)(1)(iii) until **December 31, 2018** for domestic transportation in order to provide additional time for implementation and depletion of existing stocks of labels.

- **Provisions for Polymerizing Substances:** includes in the HMT four new Division 4.1 entries for polymerizing substances and adds into the HMR defining criteria, authorized packagings, and safety requirements.
- **Modification of the Marine Pollutant List:** modifies the list of marine pollutants in Appendix B to 49 CFR 172.101 by adding five (5) new entries.
- **Packaging Requirements for Water- Reactive Materials Transported by Vessel:** amends packaging requirements for vessel transportation of water-reactive substances.
- **Hazard Communication Requirements for Lithium Batteries:** revises hazard communication requirements for shipments of lithium batteries, specifically adopts a new lithium battery label in place of the existing Class 9 label; amends the existing marking requirements for small lithium battery shipments in § 173.185(c) to incorporate a new standard lithium battery marking for use across all modes; removes the documentation requirement in § 173.185(c) for shipments of small lithium cells and batteries; and requires the lithium battery mark be applied to each package containing small lithium cells or batteries contained in equipment when there are more than four lithium cells or two lithium batteries installed in the equipment or where there are more than two packages in the consignment.
- **Engine, Internal Combustion/Machinery, Internal Combustion:** harmonizes the HMT proper shipping names utilized for the transportation of engines and machinery containing engines.
- **U.S.-Canada Regulatory Cooperation Council (RCC) Amendments:** makes amendments to the HMR resulting from coordination with Canada under the U.S.-Canada RCC. Specifically, we are adopting provisions for recognition of Transport Canada (TC) cylinders, equivalency certificates (permit for equivalent level of safety), and inspection and repair of cargo tanks. In a parallel effort, Transport Canada is adopting similar regulatory changes that will provide reciprocal recognition of DOT cylinders and DOT special permits.

FAQs

Hazardous Substance (RQ) determination in 49 CFR 171.8 & 172.101 Appendix A

*** Could a hazardous waste also be a hazardous substance if the constituents are not listed in the RQ tables of 172.101 Appendix A? Reference # 00-0107, 08-0191R, 15-0227**

Yes, for example although isopropanol is not listed in Appendix A, if the mixture exhibits the hazardous waste characteristic of ignitability under 40 CFR 261.21, it is a D001 waste. When the quantity of the material in the package equals or exceeds the RQ of 100 pounds for D001 unlisted, the material is a hazardous substance for HMR purposes.

*** If the amounts of each ingredient are unknown in a mixture, how do I determine if it is a hazardous substance or not? Reference # 04-0182, 08-0191R**

If each ingredient is known, but the amount of each is not, then use the lowest RQ value of any of the constituents and compare to the entire amount of the package.

*** Can I over classify when a hazardous substance may not be present? Reference # 04-0182, 05-0186**

No. A shipping paper should not identify a package as containing a reportable quantity nor should a package be marked "RQ" when a reportable quantity is not present.

*** If a hazardous waste component and amount is known, which RQ value do I use if there is a difference between the specific chemical name and the EPA code unlisted value? Reference # 04-0182**

If the specific chemical is known, it is more appropriate to use this listing versus the unlisted EPA waste code RQ listing.

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.

popquiz



Is it good to see the hazardous material in your drum shipment "eating" its way through the side? Should a shipper verify physical and chemical compatibility between anything inside the package and package's construction material?

I hope you said "Yes!" All class 7 radioactive material packagings must meet the minimum requirements outlined in 49 CFR 173.24, 173.24a & 173.410.

Exempt Quantity material RQ-Asbestos 1 Metal Box	N/A	N/A	Solid/Metal Oxides	Co58 Cr-51
2016 DAW				Fe-55 Mn-54

Can see anything wrong with the entries on this NRC 540 form excerpt? What does "Exempt Quantity material" mean? Exempt quantity of what? If there is a Reportable Quantity (RQ) of material in a shipment, isn't this regulated as a DOT hazardous material? Yes, anything meeting the definition of a hazardous substance (RQ) is hazardous material per 49 CFR 171.8 and requires a basic shipping description on the shipping paper. So, definitely not "exempt" from the Hazardous Material Regulations (49 CFR Parts 171 – 180). Is the hazardous substance entry correct? Or should "Asbestos" be placed in parenthesis? Yes, according to 49 CFR 172.203(c) the entry should look like: "RQ(Asbestos)". Lastly, what is "DAW"? You and I may know it is Dry Activated Waste, but is this an approved DOT abbreviation? We should not include any code or abbreviation in the shipping description per 49 CFR 172.201(a)(3).



How many issues can you identify with these cask communications? Can you see the "R" or "E" or the dash between the "Radioactive-LSA" marking? Oops, this marking is not complete for a Low Specific Activity (LSA) shipment per 49 CFR 173.427(a)(6)(vi). Does the placard on the cask require an outer border? Yes, because the placard is placed on a non-contrasting background per 49 CFR 172.516(c)(7). What does the zero "0" under the LSA marking communicate? Was this the weight marking? Was it left over from the empty packaging ID # marking of UN2908? Be careful that your DOT hazard communications are compliant, durable, visible and legible.



THE LATEST HAPPENINGS

EPA INTENTS REVISING CLEAN WATER

RULE: On March 06, 2017 (82 FR 12532), the Environmental Protection Agency (EPA) and the Department of the Army (Army) published a notice announcing their intention to review and rescind or revise the Clean Water Rule. It is important that stakeholders and the public at large have certainty as to how the Clean Water Act (CWA) applies to their activities. Through new rulemaking, the EPA and the Army seek to provide greater clarity and regulatory certainty concerning the definition of "waters of the United States" and "navigable waters."

NRC UPDATES WASTE BURIAL CHARGES

REPORT: On March 14, 2017 (82 FR 13677), the Nuclear Regulatory Commission (NRC) published a notice issuing Revision 16 of NUREG-1307 "Report on Waste Burial Charges: Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities." This report, which is revised periodically, explains the formula acceptable to the NRC for determining the minimum decommissioning fund requirements for nuclear power reactors, as required by the NRC's regulations.

TSA EXTENDS COMMENT PERIOD:

On March 14, 2017 (82 FR 13575), the Transportation Security Administration (TSA) published a notice to reopen the comment period for the advance notice of proposed rulemaking, published in the Federal Register on December 16, 2016 (81 FR 91401), requesting public comments on several topics relevant to the development of surface transportation vulnerability assessment and security plan regulations. TSA is reopening the comment period for an additional 60 days and comments must be received by May 15, 2017.

DOT HARMONIZES HMR:

On March 30, 2017 (82 FR 15796), the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a final rule amending the Hazardous Materials Regulations (HMR) in 49 CFR Parts 107 - 180 to maintain consistency with international regulations and standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions are necessary to harmonize the HMR with recent changes

IN THE FEDERAL REGISTER

NRC REVISED NUREG-1556 BROAD

SCOPE LICENSES: On April 05, 2017 (82 FR 16635), the Nuclear Regulatory Commission (NRC) published a notice announcing the issuance of Revision 1 to NUREG-1556, Volume 11, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Licenses of Broad Scope," which updates licensing guidance for broad scope licenses. This document has been revised to include information on updated regulatory requirements, safety culture, security of radioactive materials, protection of sensitive information, and changes in regulatory policies and practices.

DOT REVISES HAZMAT CIVIL PENALTIES:

On April 19, 2017 (82 FR 18397), the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a final rule revising the maximum and minimum civil penalties in 49 CFR Parts 107 and 171 for a known violation of the Federal hazardous material transportation law or a regulation, order, special permit, or approval issued under that law. The maximum civil penalty for a knowing violation is now \$78,376, except for violations that result in death, serious illness, or severe injury to any person or substantial destruction of property, for which the maximum civil penalty is \$182,877. In addition, the minimum civil penalty amount for a violation relating to training is now \$471. The effective date of this final rule is April 19, 2017.

DOT-39 CYLINDER SAFETY ADVISORY:

On April 24, 2017 (82 FR 18967), the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a safety advisory notice to address concerns of offerors and users of DOT Specification 39 (DOT-39) cylinders that exceed 75 cubic inches (in³) (1.23 L) and to provide clarification of the initial safety advisory notice (81 FR 90061) PHMSA issued on this subject on December 13, 2016 (Notice No. 2016-14). DOT-39 cylinders exceeding 75 in³ (1.23 L) should not contain liquefied flammable compressed cyclopropane, ethane, or ethylene, or liquefied petroleum gases. PHMSA advises against the filling or transporting of these gases in DOT-39 cylinders when the cylinder's internal volume exceeds 75 in³ (1.23 L).

WHY #CleanWaterRules

Clean water upstream means cleaner water downstream. Our Clean Water Rule protects the streams and wetlands that feed our rivers, lakes, bays and coastal waters. These waters are critical for agriculture, healthy communities, our economy and our way of life.

- 60% of stream miles in the U.S. only flow seasonally or after rain.
- Streams and wetlands filter pollution, reduce flooding and give fish and wildlife a place to live.
- One-third of threatened and endangered species live only in wetlands.
- Normal farming and ranching activities – like planting, harvesting and moving livestock – won't be affected by the Clean Water Rule.
- Farms depend on clean water for irrigation, crops and livestock.
- Tourism, fishing, recreation, energy production, manufacturing and other industries that depend on clean water add billions of dollars to our economy every year.
- 1 in 3 Americans get drinking water from seasonal and rain-dependent streams.
- 19 million people per year go paddling, spending \$86 billion on gear and trips.
- Fishing adds \$48 billion to the economy every year, and supports nearly a million jobs.

EPA www.epa.gov/cleanwaterrule

made to the International Maritime Dangerous Goods (IMDG) Code, the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods-Model Regulations. Additionally, PHMSA is adopting several amendments to the HMR that result from coordination with Canada under the U.S.-Canada Regulatory Cooperation Council. This rule is effective March 30, 2017, except for the revisions to paragraph (f) in 49 CFR 173.21 "Forbidden materials and packages" which is effective January 2, 2019. Delayed compliance with these amendments is January 1, 2018.

2017 COMMERCIAL TRAINING SCHEDULE

Radioactive Class 7 Material Packaging, Transportation & Disposal 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
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Jun. 5 – 8	32	\$1795	Mount Pleasant, SC
Air Transport of Radioactive Materials (IATA/DOT)*	Jun. 9	8	\$945	Mount Pleasant, SC
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Jul. 31 – Aug. 3	32	\$1795	Orlando, FL
Air Transport of Radioactive Materials (IATA/DOT)*	Aug. 4	8	\$945	Orlando, FL
DOT/NRC/EPA Hazardous Waste/Mixed Waste Packaging, Transportation & Disposal	Sep. 11 – 15	32	\$1895	Columbia, SC
Barnwell Disposal Site & Processing Facilities Tour	Sep. 14	--	\$0	Barnwell, SC
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Oct. 23 – 26	32	\$1795	Hilton Head, SC
Air Transport of Radioactive Materials (IATA/DOT)*	Oct. 27	8	\$945	Hilton Head, SC
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Nov. 6 – 10	32	\$1895	Oak Ridge, TN
Bear Creek Operations (BCO) Facility Tour	Nov. 9	--	\$0	Oak Ridge, TN
DOT/NRC Radioactive Waste Packaging, Transportation & Disposal	Dec. 4 – 7	32	\$1795	Las Vegas, NV
Air Transport of Radioactive Materials (IATA/DOT)*	Dec. 8	8	\$945	Las Vegas, NV

IATA*: If an IATA class is taken in conjunction with the basic class during the same week, there is a \$200 multi-class discount

CEU**: The American Academy of Health Physics (AAHP) has awarded continuation education credit hours for these courses

