

<u>SUBJECT</u>		<u>DATE</u>	
1188.	RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario II	ENCORE	AUG 11, 2016
1189.	RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario III	ENCORE	AUG 18, 2016
1190.	Product Spills and Waste Determinations	ENCORE	AUG 25, 2016
1191.	Product Spills, Waste Determinations, and LDR	ENCORE	SEP 1, 2016
1192.	Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents	ENCORE	SEP 8, 2016
1193.	Regulatory Status of Sand Blast Grit Contaminated with Trace Listed Solvents	ENCORE	SEP 15, 2016
1194.	Hazardous Waste "F" Listings and Trace Contamination	ENCORE	SEP 22, 2016
1195.	Hazardous Waste "F" Listings and Trace Contamination – Again!	ENCORE	SEP 29, 2016
1196.	Hazardous Waste Determinations and Phase Separation		OCT 6, 2016
1197.	Asbestos and DOT Relief	ENCORE	OCT 13, 2016
1198.	PCB Containers and Concentration of PCBs	ENCORE	OCT 20, 2016
1199.	PCB Analytical Waste Disposal Requirements	ENCORE	OCT 27, 2016
1200.	PCB Analytical Waste Disposal Requirements – Water vs. Organic Liquids and Non-aqueous Inorganic Liquids		NOV 3, 2016
1201.	Listed Waste Codes and Pre-RCRA Wastes	ENCORE	NOV 10, 2016
1202.	Purpose of the ≤90-day Hazardous Waste Accumulation Exemption		NOV 17, 2016
1203.	Used Oil Eligibility for Turkey and Ham Oils	ENCORE	NOV 23, 2016
1204.	PCB Reporting and Recordkeeping Relief	ENCORE	DEC 1, 2016
1205.	Defining Criteria for Household Waste Exclusion	ENCORE	DEC 8, 2016
1206.	The Household Waste Exclusion and Renovation Debris	ENCORE	DEC 15, 2016
1207.	'Twas the Night before Christmas – The Twenty-Fourth Annual Edition		DEC 24, 2016
1208.	The Household Waste Exclusion and Renovation Debris – Part II	ENCORE	DEC 29, 2016
1209.	Absorbent Additions and Treatment		JAN 5, 2017
1210.	Frozen RCRA Wastewater - DOT Liquid or Solid When Manifested?	ENCORE	JAN 12, 2017
1211.	DOT Marking Specifications for the "UN", "NA" and "ID" Markings		JAN 19, 2017
1212.	Satellite Accumulation within a ≤90-day Accumulation Area	ENCORE	JAN 26, 2017
1213.	Washington State-Only Dangerous Waste Markings – Accumulation vs. Pre-Transport	ENCORE	FEB 2, 2017
1214.	RCRA Empty Tanker Trailers and Listed Waste Codes	ENCORE	FEB 9, 2017
1215.	RCRA Empty vs. DOT Empty	ENCORE	FEB 16, 2017
1216.	RCRA Empty vs. DOT Empty II	ENCORE	FEB 23, 2017
1217.	Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents	ENCORE	MAR 2, 2017
1218.	Multiple Characteristic and Listed Hazardous Waste Codes and the "in lieu of" LDR Principle	ENCORE	MAR 9, 2017
1219.	LDR Storage Prohibitions and the One-Year Rule	ENCORE	MAR 16, 2017
1220.	LDR Storage Prohibitions and Treated Wastes	ENCORE	MAR 23, 2017
1221.	LDR Storage Prohibitions and Treated Hazardous Debris or Contaminated Soil		MAR 30, 2017
1222.	LDR Requirements for Universal Wastes		APR 6, 2017
1223.	LDR Requirements for Spent Lead-Acid Batteries Being Reclaimed		APR 13, 2017
1224.	When is When Defined for the RCRA Phrase "When Reclaimed"?	ENCORE	APR 20, 2017
1225.	RCRA Characteristic of Ignitability and DOT Oxidizers	ENCORE	APR 27, 2017

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING

TO: CH2M HILL PLATEAU REMEDIATION COMPANY

FROM: PAUL W. MARTIN, RCRA Subject Matter Expert
CHPRC Environmental Protection, Hanford, WA

SUBJECT: RCRA Characteristic of Ignitability and DOT Oxidizers

DATE: APRIL 27, 2017

<u>CHPRC Projects</u>	<u>CH PRC - Env. Protection</u>	<u>MSA</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
Richard Austin Roni Ashley Tania Bates Rene Catlow Richard Clinton Larry Cole John Dent Brian Dixon Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Jeanne Kisielnicki Melvin Lakes Jim McGrogan Stuart Mortensen Dean Nester Dave Richards Phil Sheely Connie Simiele Jennie Stults Jeff Westcott Jeff Widney	Ron Brunke Bob Bullock Bill Cox Laura Cusack Lorna Dittmer Ted Hopkins Sasa Kosjerina Jim Leary Rick Oldham Anthony Nagel Robert Nielson Linda Petersen Fred Ruck Ray Swenson Wayne Toebe Daniel Turlington Dave Watson Joel Williams	Brett Barnes Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzales Jr. Dashia Huff Mark Kamberg Edwin Lamm Candice Marple Jon McKibben Saul Martinez Jon Perry Christina Robison Lana Strickling Lou Upton	(TBD) <u>DOE RL, ORP, WIPP</u> Mary Beth Burandt Duane Carter Cliff Clark Tony McKarns Ellen Mattlin Greg Sinton Scott Stubblebine	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Jeff DeLine Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Joe Fritts Lori Fritz Tom Gilmore Rob Gregory Gene Grohs James Hamilton Andy Hobbs Ryan Johnson Dan Kimball Megan Lerchen Richard Lipinski Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Marty Martin Grant McCalmant Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Mandy Pascual Kirk Peterson	Jean Quigley Dan Saueressig Merrie Schilperoort Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Kyle Webster Ted Wooley

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING

SUBJECT: RCRA Characteristic of Ignitability and DOT Oxidizers

Q: A customer has a solid waste that meets no hazardous waste listings for the F, K, U or P waste codes. The customer has also confirmed that the solid waste exhibits no characteristics of hazardous waste from D002 to D043. However, the customer is not sure if the solid waste is a D001 ignitable characteristic waste since the original product's Material Safety Data Sheet (MSDS) states that the material is an oxidizer which is one of the criteria of a D001 hazardous waste. The MSDS also states that the material is not regulated by the Department of Transportation (DOT) and hence the hazard classes of 5.1 oxidizer and 5.2 organic peroxide do not apply. Since the waste is described on an MSDS as an oxidizer but does not meet the definition of a DOT oxidizer, is the customer's solid waste a D001 or not?

A: This question has a lot of history to it.

Prior to the July 14, 2006, Federal Register that promulgated changes to the ignitable characteristic wording at 40 CFR 261.21 [WAC 173-303-090(5)], an oxidizer met the D001 characteristic if "it is an oxidizer as defined in 49 CFR 173.151". Clearly, if a waste met the DOT definition of a hazard class 5.1 oxidizer as defined at 49 CFR 173.151, it would also meet the RCRA definition of a characteristic ignitable hazardous waste at 40 CFR 261.21(a)(4).

In the July 14, 2006, Federal Register, EPA corrected wording at 40 CFR 261.21(a)(4) since DOT had moved its reference to oxidizer. The effect of the DOT move was that 40 CFR 261.21(a)(4) referred to nonexistent or irrelevant sections of the DOT regulations. EPA's solution was to replace the obsolete references to the DOT regulations with the actual regulatory language. EPA stated on page 40255:

"The implementation and enforcement of the ignitability characteristic will not change in any way. The Agency is simply publishing the original definitions to ease the burden on the regulated community."

The current wording at 40 CFR 261.21(a)(4) is now narrative but still addresses the DOT definition of oxidizers and organic peroxides. Hence if a material's MSDS states that it is an oxidizer but is not regulated by DOT, the material would not be a D001 ignitable characteristic hazardous waste.

SUMMARY:

- Prior to the July 14, 2006, Federal Register, a D001 oxidizer was defined as meeting the DOT oxidizer definition at 49 CFR 173.151.
- After the July 14, 2006 amendments took effect, a D001 oxidizer was still defined as meeting the DOT definition for oxidizer and organic peroxides but the RCRA regulation is in a narrative form.
- EPA confirmed that this final rule did not create new regulatory requirements and did not change in any way the implementation and enforcement of the ignitable characteristic.

Excerpts from the previous and current wording of 40 CFR 261.21, and the July 14, 2006, Federal Register are attached. If you have any questions, please contact me at Paul_W_Martin@rl.gov or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 4/27/17

FILE: 2MT\2017\042717.rtf

PG: 1

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: RCRA Characteristic of Ignitability and DOT Oxidizers

Previous Wording **40 CFR §261.21 Characteristic of ignitability**

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 70 FR 34561, June 14, 2005]

Current Wording **40 CFR §261.21 Characteristic of ignitability**

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(4) It is an oxidizer. An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter (see Note 4).

(i) An organic compound containing the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals must be classed as an organic peroxide unless:

(A) The material meets the definition of a Class A explosive or a Class B explosive, as defined in §261.23(a)(8), in which case it must be classed as an explosive,

(B) The material is forbidden to be offered for transportation according to 49 CFR 172.101 and 49 CFR 173.21,

(C) It is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide, or

(D) According to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation (see Note 3), it has been determined that the material does not present a hazard in transportation.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

Note 4: The DOT regulatory definition of an oxidizer was contained in §173.151 of 49 CFR, and the definition of an organic peroxide was contained in paragraph 173.151a. An organic peroxide is a type of oxidizer.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 70 FR 34561, June 14, 2005; 71 FR 40259, July 14, 2006]

FROM: Paul W. Martin

DATE: 4/27/17

FILE: 2MT\2017\042717.rtf

PG: 2

DISCLAIMER - "Two Minute Training" ("2MT") is a peer-to-peer communication, presented to share the benefit of the author's work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author's past or current employers or the US Department of Energy. The author's employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: When is When Defined for the RCRA Phrase “When Reclaimed”?

Hazardous Waste and Used Oil; Corrections to Errors in the Code of Federal Regulations

Federal Register / Vol. 71, No. 135 / Friday, July 14, 2006 / Rules and Regulations

Page 40254

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is correcting errors in the hazardous waste and used oil regulations, as a result of printing omissions, typographical errors, misspellings, citations to paragraphs and other references that have been deleted or moved to new locations without correcting the citations, and similar mistakes appearing in numerous final rules published in the Federal Register. **This final rule does not create new regulatory requirements.**

DATES: Effective Date: This final rule is effective on July 14, 2006.

SUPPLEMENTARY INFORMATION:

III. What Does This Rule Do and Why Are the Corrections Necessary?

B. Corrections to Part 261 (Identification and Listing of Hazardous Waste)

1. EPA is amending the following sections of 40 CFR part 261 in order to correct typographical and spelling errors, incorrect citations, and printing errors: Sections 261.2, 261.3, 261.4, 261.6, 261.21, 261.24, 261.31, 261.32, 261.33, 261.38, Appendix VII (F002, F038, F039, K001, and K073 entries), and Appendix VIII.

2. 40 CFR 261.21(a)(3) and 261.21(a)(4): When EPA first promulgated the ignitability characteristic for hazardous waste identification, the Agency incorporated, by reference, U.S. Department of Transportation (DOT) regulations (contained in Title 49 of the CFR) that defined an ignitable compressed gas and an oxidizer. In 1990, DOT revised and recodified its regulations governing transportation of hazardous materials, including the sections of 49 CFR referenced by 40 CFR 261.21. The referenced DOT regulations were both revised and moved within 49 CFR; as a result, the hazardous characteristic definitions at 40 CFR 261.21(a)(3) and 261.21(a)(4) now refer to nonexistent or irrelevant sections of the DOT regulations.

Since these original DOT regulations are still required under RCRA, EPA is replacing the obsolete references to the DOT regulations contained in the definitions for an ignitable compressed gas and an oxidizer, 40 CFR 261.21(a)(3) and 261.21(a)(4), respectively, with the actual language from the referenced sections of the DOT regulations that was published in Title 49 of the CFR at the time of the finalization of the RCRA regulations (1980). Because it can be difficult to obtain copies of the CFR from 1980, this revision will make it easier for the regulated community to find and apply the definitions of ignitable compressed gas and oxidizer for the purposes of 261.21. **The implementation and enforcement of the ignitability characteristic will not change in any way. The Agency is simply publishing the original definitions to ease the burden on the regulated community.**

FROM: Paul W. Martin

DATE: 4/27/17

FILE: 2MT\2017\042717.rtf

PG: 3

DISCLAIMER - “Two Minute Training” (“2MT”) is a peer-to-peer communication, presented to share the benefit of the author’s work experience with other professionals, who can independently evaluate his analysis. 2MT does not necessarily reflect the opinions, conclusions or policies of the author’s past or current employers or the US Department of Energy. The author’s employers do not take any responsibility for the accuracy of its conclusions. 2MT is not intended to be used as authoritative guidance or direction by any person or entity. Anyone transmitting or reproducing it is prohibited from modifying its content, this disclaimer, or other text, or republishing it independent of its original source.