APA-1
Revised 4/2018

TRANSMITTAL SHEET FOR
NOTICE OF INTENDED ACTION

Control No. **335** Department or Agency **Environmental Management**
Rule No. **335-14-2-.03**
Rule Title: **Characteristics of Hazardous Waste**

New	Amend	Repeal	Adopt by Reference
	X		

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety?	YES
Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare?	YES
Is there another, less restrictive method of regulation available that could adequately protect the public?	NO
Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree?	NO
Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule?	NO
Are all facets of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public?	YES
Does the proposed action relate to or affect in any manner any litigation which the agency is a party to concerning the subject matter of the proposed rule?	NO

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Does the proposed rule have an economic impact?	NO

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of section 41-22-23, Code of Alabama 1975.

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Certification of Authorized Official

I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that if conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Services Agency.

Signature of certifying officer Marilyn Elliott

Date **November 18, 2022**

REC'D & FILED
NOV 18 2022
LEGISLATIVE SVC AGENCY

APA-2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION

NOTICE OF INTENDED ACTION

AGENCY NAME: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RULE NO. & TITLE:

335-14-2-.01	General (Amend)
335-14-2-.03	Characteristics of Hazardous Waste (Amend)
335-14-2-.04	Lists of Hazardous Wastes (Amend)
335-14-2-.05	Exclusions/Exemptions (Amend)
335-14-2-.08	Financial Requirements for Management of Excluded Hazardous Secondary Materials (Amend)
335-14-2-.09	Use and Management of Containers (Amend)
335-14-2-.10	Tank Systems (Amend)
335-14-2-.13	Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials (Amend)
335-14-2-.27	Subpart AA-Air Emission Standards for Process Vents (Amend)
335-14-2-.28	Subpart BB-Air Emission Standards for Equipment Leaks (Amend)
335-14-2-.29	Subpart CC - Air Emission Standards for Tanks and Containers (Amend)
335-14-2-Appendix VIII	Hazardous Constituents (Amend)
335-14-2 Appendix IX	Wastes Excluded Under 335-14-1-.03(2) (Amend)

INTENDED ACTION: Revise Division 14 of the ADEM Administrative Code.

SUBSTANCE OR PROPOSED ACTION: Revise portions of Division 14 Regulations to incorporate changes to ensure consistency with State and Federal Statutes; to adopt certain State specific requirements; and to provide clarification of State requirements for the management of hazardous waste.

TIME, PLACE, MANNER OF PRESENTING VIEWS:
Comments may be submitted in writing or orally at a public hearing to be held January 24, 2023, at 2:00 pm in the Main Hearing Room at the ADEM Central Office located at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: January 24, 2023

CONTACT PERSON AT AGENCY: Lynn Roper, Chief, Office of Land Services (334-271-7728)

Lance R. LeFleur
Director

335-14-2-.03 Characteristics of Hazardous Waste.

(1) General.

(a) A solid waste, as defined in 335-14-2-.01(2), which is not excluded from regulation as a hazardous waste under 335-14-2-.01(4)(b), is a hazardous waste if it exhibits any of the characteristics identified in 335-14-2-.03.

(b) A hazardous waste which is identified by a characteristic in 335-14-2-.03 is assigned every EPA Hazardous Waste Number that is applicable as set forth in 335-14-2-.03. This number must be used in complying with the notification requirements of Section 3010 of the RCRA and all applicable recordkeeping and reporting requirements under 335-14-3 through 335-14-6, 335-14-8 and 335-14-9.

(c) For purposes of 335-14-2-.03, the Department will consider a sample obtained using any of the applicable sampling methods specified in 335-14-2-Appendix I to be a representative sample within the meaning of 335-14-1.

(2) 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:

1. It is a liquid, other than ~~an aqueous~~ solution containing less than 24 percent alcohol by volume and at least 50 percent water by weight, that has a flash point less than 60°C (140° F), as determined by using one of the following ASTM standards: ~~a Pensky-Martens Closed Cup Tester, using the test method specified in~~ ASTM ~~Standard~~ D--93-79, ~~or~~ D--93-80, ~~[incorporated by reference in 335-14-1-.02(2)], or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard~~ D--3278-78, D-8174-18, or D8175-18 as specified in SW-846 Test Methods 1010B or 1020C [incorporated by reference in 335-14-1-.02(2)].

2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

3. It is an ignitable compressed gas.

(i) The term "compressed gas" shall designate any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70°F or, regardless of the pressure at 70°F, having an absolute pressure exceeding 104 p.s.i. at 130°F; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100°F as determined by ASTM Test D – 323.

(ii) A compressed gas shall be characterized as ignitable if any one of the following occurs:

(I) Either a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be the ASTM E 681-85 [incorporated by reference in 335-14-1-.02(2)], or other equivalent methods approved by the Associate Administrator~~acceptable to the Bureau of Explosives and approved by the director~~, Pipeline and Hazardous Materials ~~Technology~~Safety Administration, U.S. Department of Transportation~~(see Note 2)~~.

(II) ~~Using the Bureau of Explosives' Flame Projection Apparatus (see Note 1), the flame projects more than 18 inches beyond the ignition source with valve opened fully, or, the flame flashes back and burns at the valve with any degree of valve opening~~It is determined to be flammable or extremely flammable using 49 CFR 173.115(l).

~~(III) Using the Bureau of Explosives' Open Drum Apparatus (see Note 1), there is any significant propagation of flame away from the ignition source.~~

~~(IV) Using the Bureau of Explosives' Closed Drum Apparatus (see Note 1), there is any explosion of the vapor-air mixture in the drum.~~

4. It is an oxidizer. An oxidizer for the purpose of ~~this subchapter~~335-14-2-.03(2) 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:

(I) The material meets the definition of a ~~Class A~~Division 1.1, 1.2, or 1.3 explosive~~or a Class B explosive~~, as defined in 335-14-2-.03(4)(a)8., in which case it must be classed as an explosive,

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

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

(IV) 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.

~~[**Note 1:** A description of the Bureau of Explosives' Flame Projection Apparatus, Open Drum Apparatus, Closed Drum Apparatus, and method of tests may be procured from the Bureau of Explosives.]~~

~~[**Note 2:** As part of a U.S. Department of Transportation (DOT) reorganization, the Office of Hazardous Materials Technology (OHMT), which was the office listed in the 1980 publication of 49 CFR 173.300 for the purposes of approving sampling and test procedures for a flammable gas, ceased operations on February 20, 2005. OHMT programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]~~

~~[**Note 3:** As part of a U.S. Department of Transportation (DOT) reorganization, the Research and Special Programs Administration (RSPA), which was the office listed in the 1980 publication of 49 CFR 173.151a for the purposes of determining that a material does not present a hazard in transport, ceased operations on February 20, 2005. RSPA programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]~~

~~[**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.]~~

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

(3) Characteristic of corrosivity.

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

1. It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 335-14-1-.02(2).

2. It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and as incorporated by reference in 335-14-1-.02(2).

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

(4) Characteristic of reactivity.

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

1. It is normally unstable and readily undergoes violent change without detonating.

2. It reacts violently with water.

3. It forms potentially explosive mixtures with water.

4. When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

5. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

7. It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

8. It is a forbidden explosive as defined in 49 CFR §173.54, or is a Division 1.1, 1.2, or 1.3 explosive as defined in 49 CFR §§173.50 and 173.53.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

(5) Characteristic of Toxicity.

(a) A solid waste, except manufactured gas plant waste, exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, as incorporated by reference in 335-14-1-.02(2), the extract from a representative sample of the waste contains any of the contaminants listed in Table 1 at the concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of 335-14-2-.03(5).

(b) A solid waste that exhibits the Characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1
MAXIMUM CONCENTRATION OF CONTAMINANTS
FOR THE TOXICITY CHARACTERISTIC

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0

D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0[4]
D024	m-Cresol	108-39-4	200.0[4]
D025	p-Cresol	106-44-5	200.0[4]
D026	Cresol	----	200.0[4]
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13[3]
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13[3]
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0[3]
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1] Hazardous waste number.

[2] Chemical abstracts service number.

[3] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

[4] If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

Authors: Stephen C. Maurer; Steven O. Jenkins; Michael B. Champion, C. Edwin Johnson, Theresa A. Maines, Heather M. Jones; Vernon H. Crockett; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
History: November 19, 1980.
Amended: Effective: April 9, 1986; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: January 1, 1993; **Amended:** Effective:

January 5, 1995; Amended: Effective: March 27, 1998; Amended: Effective: April 13, 2001; Amended: Effective: April 17, 2003; Amended: Effective: April 4, 2006; Amended: Effective: April 3, 2007; Amended: Effective: May 27, 2008; Amended: Effective: March 31, 2009; Amended: Effective: March 31, 2011; Amended: Effective: April 6, 2018; **Proposed: November 18, 2022.**