

RCRA Compliance

WHO WE INSPECT AND WHAT WE FIND

COMMON RCRA VIOLATIONS, UPCOMING ENFORCEMENT INITIATIVES, AND HAZARDOUS WASTE DETERMINATIONS

Iowa Strategic Goals Program
November 6, 2024



Today's topics

- ▶ Some Basics
- ▶ Enforcement Initiatives
- ▶ Hazardous Waste Determinations
- ▶ Common RCRA Violations



Some RCRA basics

- ▶ Hazardous waste is not regulated by IDNR other than as a solid waste
- ▶ Landfill disposal is prohibited by IDNR
- ▶ 40 CFR Parts 260 – 279 regulate hazardous waste
- ▶ RCRA statute requires anyone managing hazardous waste to have a permit

Some RCRA basics

- ▶ Generator regulations exempt generators from permitting
 - ▶ 40 CFR 262.15-17
 - ▶ 40 CFR 262 subparts K-M
- ▶ Some regulations are separate from the permitting exemption
 - ▶ 40 CFR 262.11 Hazardous Waste Determinations
 - ▶ 40 CFR 262 Subpart B - Manifesting
 - ▶ 40 CFR 267 & 270 Permits Required
 - ▶ 40 CFR 273 Universal Waste
 - ▶ 40 CFR 279 Used Oil

Inspection Planning

- ▶ EPA selects target facilities at the beginning of the fiscal year
- ▶ Required inspections
 - ▶ Large Quantity Generators - 20% of universe per year (about 165 in Iowa = 33 inspections per year)
 - ▶ Small and Very Small Quantity Generators – as capacity allows
 - ▶ Treatment, Storage, and Disposal Facilities - biennially, but annually for government owned

Inspection Planning

- ▶ Strategic planning (examples)

Container Cleaning	↑	Healthcare	↓	Chrome Plating	—
Academic facilities	↓	Painting	—	Warehousing	↑
Printing	—	Multi-Media	↑	Non-reporters	↑
Pharmaceuticals	↑	Vape Shops	↑	Chemical Manufacturing	↑
Manifest Screening	—	Corporate Sisters	↑	Environmental Justice	↑

- ▶ National Compliance Initiatives

- ▶ Air emissions from RCRA facilities (Subparts AA, BB, and CC) has expired

Hazardous Waste Determinations

40 CFR 262.11 – “A **person who generates** a solid waste, as defined in 40 CFR 261.2, must make an **accurate** determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. A hazardous waste determination is made using the following steps:”

- ▶ A person who generates – responsibility falls upon the generator
 - ▶ Not the consultant
 - ▶ Not the waste hauler
- ▶ Solid waste – numerous exemptions
- ▶ Accurate determination – EPA looks at this

Hazardous Waste Determination – What is a Solid Waste?

- ▶ Defined at 40 CFR 261.2 “A solid waste is any **discarded material** that is not excluded under § 261.4(a) or that is not excluded by a variance granted under §§ 260.30 and 260.31 or that is not excluded by a non-waste determination under §§ 260.30 and 260.34.”
- ▶ A discarded material is any material which is:
 - ▶ Abandoned
 - ▶ Recycled
 - ▶ Inherently waste-like
 - ▶ Certain military munitions

Hazardous Waste Determinations

40 CFR 262.11 (a) – “The hazardous waste determination for each solid waste must be made **at the point of waste generation**, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change.”

- ▶ Made at the Point of Generation – **Physical and Chronological**
- ▶ Before dilution, mixing, or alteration
- ▶ If it has been changed

Hazardous Waste Determinations

40 CFR 262.11 (b) – “A person must determine whether the solid waste is **excluded** from regulation under 40 CFR 261.4.”

- ▶ 261.4(a) Exclusion from being solid waste
- ▶ 261.4(b) Exclusion from being hazardous waste (still solid waste)
- ▶ 261.4(c-h) Various specific exclusions

Hazardous Waste Determinations

40 CFR 262.11 (c) – “If the waste is not excluded under 40 CFR 261.4, the person must then **use knowledge** of the waste to determine whether the waste meets any of the listing descriptions under subpart D of 40 CFR part 261. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information.”

- ▶ 261.31 – F List Non-Specific Sources (e.g., F003 spent solvent)
- ▶ 261.32 – K List Specific Sources (e.g., K047 Pink water from TNT opps.)
- ▶ 261.33(e) – P List Commercial Chemical Products (acute hazard)
- ▶ 261.33(f) – U List Commercial Chemical Products

Hazardous Waste Determinations

40 CFR 262.11 (d) – “The person then must also determine whether the waste exhibits one or more **hazardous characteristics** as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section, or a combination of both.”

- ▶ Subpart C characteristics are:
 - ▶ Ignitability (D001)
 - ▶ Corrosivity (D002)
 - ▶ Reactivity (D003)
 - ▶ Toxicity (D004 – D043)

Hazardous Waste Determinations

40 CFR 262.11 (d) – “The person then must also determine whether the waste exhibits one or more **hazardous characteristics** as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section, or a combination of both.”

- ▶ (d)(1) – “The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste.”
- ▶ (d)(2) – “When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in subpart C . . . or according to an equivalent method approved by the Administrator . . .”

Hazardous Waste Determinations

40 CFR 262.11 (e) – “If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for other possible exclusions or restrictions pertaining to management of the specific waste.”

Hazardous Waste Determinations

40 CFR 262.11 (f) – “A small or large quantity generator must maintain **records** supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste, as defined by 40 CFR 261.3. Records must be maintained for at least **three years** from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. . . .”

Hazardous Waste Determinations

262.11 (g) – “If the waste is determined to be hazardous, small quantity generators and large quantity generators must identify **all applicable** EPA hazardous waste numbers (**EPA hazardous waste codes**) in subparts C and D of part 261 of this chapter. Prior to shipping the waste off site, the generator also must mark its containers with **all applicable** EPA hazardous waste numbers (EPA hazardous waste codes) according to § 262.32.”

Hazardous Waste Determinations

Practical Example – Solvent Wipes

11(a) **Point of Generation:** When the employee is no longer using the wipe

11(b) **Is it excluded under 261.4?**

261.4(a)(26) - Solvent-contaminated wipes that are sent for cleaning and reuse are **not solid wastes** from the point of generation, provided that . . .

(i) The solvent-contaminated wipes, . . . are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.”

(ii) The solvent-contaminated wipes may be accumulated . . . up to 180 days . . . for each container prior to being sent for cleaning;

(iii) . . . the solvent-contaminated wipes must contain no free liquids as defined in § 260.10 of this chapter.

(iv) Free liquids removed from the solvent-contaminated wipes . . . must be managed according to the applicable regulations;

(v) Generators must maintain at their site the following documentation:

(A) Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(B) Documentation that the 180-day accumulation time limit in 40 CFR 261.4(a)(26)(ii) is being met;

(C) Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning;

(vi) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.

Hazardous Waste Determinations

Practical Example – Solvent Wipes

11(b) Is it excluded under 261.4?

261.4(b)(18) - Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are **not hazardous** wastes from the point of generation provided that

- (i) The solvent-contaminated wipes, . . .are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.” emissions;
- (ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days . . .
- (iii) . . .the solvent-contaminated wipes must contain no free liquids as defined in § 260.10 of this chapter.
- (iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations . . .;
- (v) Generators must maintain at their site the following documentation:
 - (A) Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;
 - (B) Documentation that the 180-day accumulation time limit in 40 CFR 261.4(b)(18)(ii) is being met;
 - (C) Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal;
- (vi) The solvent-contaminated wipes are sent for disposal
 - (A) To a municipal solid waste landfill regulated . . ., or to a hazardous waste landfill . . . or
 - (B) To a municipal waste combustor or . . .to a hazardous waste combustor . . .

Hazardous Waste Determinations

Practical Example – Solvent Wipes

If the generator doesn't follow the conditions of exemption in 261.4 (a) or (b)

11(c) Are the wipes listed? Possible F001 – F005 “spent solvent”

11(d) Are the wipes characteristic? Possible D001 ignitable or contaminants like D008 Pb

11(e) Are there other exemptions? - None that I see.

11(f) Generator must keep records of this determination.

11(g) Generator must identify the correct waste codes and label containers.

Hazardous Waste Determinations

Practical Example – Waste Lamps

11(a) Point of Generation: When the lamp is no longer wanted

11(b) Is it excluded under 261.4? No.

11(c) Are the lamps listed? No.

11(d) Are the lamps characteristic? Possible D009 for mercury

Knowledge – manufacturer's literature

Testing – TCLP of representative sample

11(e) Are there other exemptions?

Yes. Universal Waste.

Must follow 40 CFR 273 exemption or else it is hazardous waste.

11(f) Generator must keep records of this determination.

11(g) Generator must identify the correct waste codes and label containers if hazardous waste.

Common Violations: Solvent-Contaminated Wipes

- ▶ Hazardous waste determination
- ▶ Illegal treatment
- ▶ Containers not closed
- ▶ Containers not labeled
- ▶ Accumulated longer than 180 days
- ▶ Free liquids mismanaged
- ▶ Not maintaining records



Common Violations: Solvent-Contaminated Wipes



Common Violations: Universal Waste Lamps

- ▶ Hazardous waste determination
- ▶ Unlabeled
- ▶ Undated or untracked
- ▶ Open
- ▶ No container at all
- ▶ Crushing is NOT recommended





1. Incompatible container
2. Accumulation start date unrecorded
3. Open containers
4. Unlabeled containers
5. Spills not cleaned up

Common Violations: Episodic Generation – Part 262 Subpart L

VSQG or SQG may generate at higher status temporarily if:

- ▶ Notify EPA within 72 hour if unforeseen or 30 days prior to a planned event
- ▶ Waste disposed of within 60 days
- ▶ Label containers “Episodic Hazardous Waste,” hazard presented, & date
- ▶ Waste is manifested
- ▶ Facility identifies an emergency coordinator

Must receive EPA approval for a second event in a single calendar year

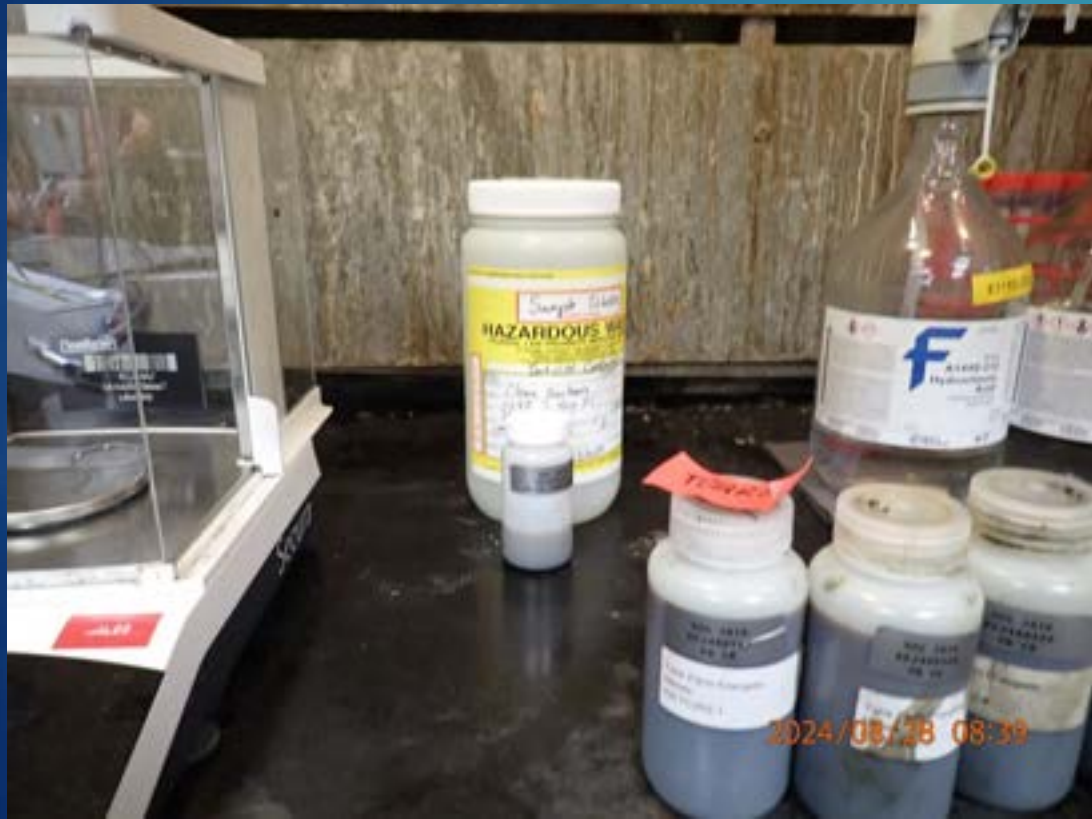
Second event must be the opposite type event from the first event.

Common Violations: § 262.15 Satellite Accumulation Areas (SAA)

- ▶ Not “at or near” the point of generation
- ▶ Moving waste from one SAA to a second SAA
- ▶ Unlabeled
 - ▶ “Hazardous Waste”
 - ▶ Indication of the hazard
- ▶ Open container
- ▶ Greater than 55 gallons



Common Violations: § 262.15 Satellite Accumulation Areas (SAA)



Common Violations: § 262.15 Satellite Accumulation Areas (SAA)



Common Violations: Central Accumulation Areas (CAA)

- ▶ Inadequate aisle space
- ▶ Weekly inspections
- ▶ Accumulation start date not on container
- ▶ Unlabeled
 - ▶ “Hazardous Waste”
 - ▶ Indication of the hazard
- ▶ Open container
- ▶ Accumulated longer than allowed
- ▶ Incompatible wastes stored together

Common Violations: Central Accumulation Areas (CAA)



Inadequate aisle space

Unlabeled

Undated

No water supply

No telephone/radios

No spill kit

Common Violations: Central Accumulation Areas (CAA)



- ▶ Open Container

40 CFR 262.251

Failure to Prevent Releases



Common Violations: Contingency Plans - Part 262 Subpart M

- ▶ Current emergency coordinator not listed.
- ▶ Plan not shared with emergency authorities
- ▶ Evacuation routes not shown
- ▶ Emergency equipment not listed (including description)
- ▶ Quick Reference Guide not developed or shared

Common Violations: Abandoned Hazardous Waste



Common Violations: Abandoned Hazardous Waste



Resources

- ▶ [Fact Sheet: The EPA's Civil Enforcement Program | US EPA](#)
- ▶ [Hazardous Waste Generators | US EPA](#)
- ▶ [eCFR :: 40 CFR Chapter I Subchapter I -- Solid Wastes](#)
- ▶ [Frequent Questions About Implementing the Regulations for Solvent-Contaminated Wipes | US EPA](#)
- ▶ [Document Display | NEPIS | US EPA](#) Handbook for HW Containers

I'll answer your questions

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