

# Overview of the 2015 Definition of Solid Waste Final Rule



## FEDERAL REGISTER

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## Part II

Environmental Protection Agency

40 CFR Parts 260 and 261  
Definition of Solid Waste; Final Rule

205-3308 (toll-free or collect) or 205-3309  
Track Along, Office of Solid Waste,  
Hazardous Waste Division  
BIRMINGHAM, MC 33344, Environmental  
Protection Agency, 1200 Purnett Road

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204 Kozlowski

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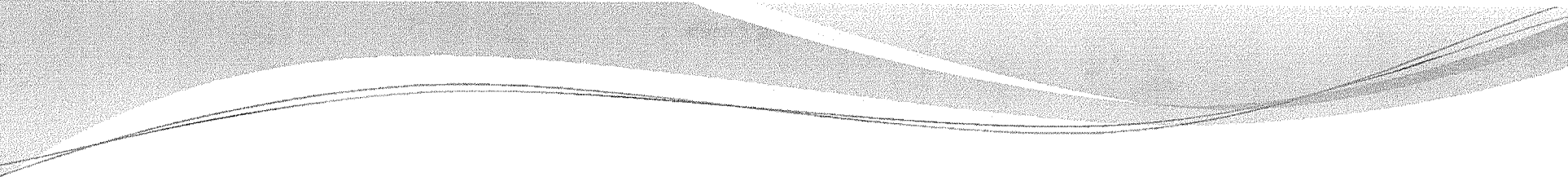
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1. What is the difference between  
 the European Union and the European  
Community?

# ADEQ

**A R K A N S A S**  
**Department of Environmental Quality**

- 
- Module 1: Goals & Background for the DSW Rule
  - Module 2: Under the Control of the Generator Exclusion
  - Module 3: Verified Recycler Exclusion
  - Module 4: Remanufacturing Exclusion
  - Module 5: Legitimate Recycling Provision
  - Module 6: Status and Implementation of the DSW Rule



# Module 1: Goals & Background

## 2015 DSW Final Rule

- On January 13, 2015, the EPA published the final rule for the Definition of Solid Waste.
- The final rule modifies EPA's 2008 Definition of Solid Waste (DSW) rule, which revised hazardous waste regulations to encourage recycling of hazardous materials.
- The final rule became federally effective on July 13, 2015



# Overview of the Final Rule

- Three new or revised conditional exclusions:

1. Generator Controlled Exclusion (revised)
2. Verified Recycling Exclusion (replaces the Transfer-Based Exclusion)
3. Remanufacturing Exclusion (new)

- Hazardous secondary materials recycled under these exclusions are not solid wastes, as long as the conditions are met.

- Limited to domestic recycling only; the final rule removes the transfer-based export exclusion at 40 CFR 261.4(a)(25)

## Overview of the Final Rule (continued)

- Codified definition of legitimate recycling, which distinguishes between real recycling vs. sham recycling; and
- Revisions to the case-specific variance and non-waste determination petition process to improve oversight and consistency.



## About the 2015 DSW Exclusions

- Three DSW exclusions: Generator-Controlled, Verified Recycler, and Remanufacturing
- Only apply to “**hazardous secondary materials**,” which are secondary materials that, when discarded, would be hazardous wastes
- These exclusions do not affect or replace any existing exclusion, exemption, or determination
- These DSW exclusions are **optional**
  - RCRA authorized states can choose whether to adopt the exclusions
  - Facilities in states that adopt can choose whether to manage hazardous secondary materials under the rule



What hazardous secondary materials are eligible for the new DSW exclusions?	YES	NO
<ul style="list-style-type: none"> <li>• Spent materials (e.g., spent solvents, spent acids) being reclaimed (e.g., regenerated)</li> <li>• Listed sludges (e.g., electric arc furnace dust) being reclaimed (e.g., metals recovery)</li> <li>• Listed byproducts being reclaimed</li> <li>• Spent petroleum catalysts (K171, K172)</li> <li>• Metals recovery in smelting, melting and refining furnaces that meet the BIF exclusion requirements found in 40 CFR 266.100(d) and 266.112</li> </ul>	✓  ✓  ✓  ✓	
<ul style="list-style-type: none"> <li>• Materials burned for energy recovery or “use constituting disposal”</li> <li>• Inherently waste-like materials (e.g., dioxins)</li> <li>• Materials already excluded under 40 CFR 261.4</li> <li>• Spent lead-acid batteries</li> <li>• Materials managed in thermal treatment units that involve destruction of hazardous constituents (e.g., carbon regeneration units)</li> </ul>		✓ ✓ ✓ ✓ ✓

# Major Components of the DSW Rule

## **1. *Under the Control of the Generator Exclusion (40 CFR 261.4(a)(23))***

Strengthened the self-implementing exclusion for materials generated and reclaimed under the control of the generator

## **2. *Verified Recycler Exclusion (40 CFR 261.4(a)(24))***

Exclusion for materials generated and transferred to another company for reclamation where the recycler is “verified” by EPA or the state through a RCRA permit or a DSW variance

## **3. *Remanufacturing Exclusion (40 CFR 261.4(a)(27))***

Exclusion for certain higher-value spent solvents remanufactured into commercial grade products

## **4. *Variances and Non-Waste Determinations (40 CFR 260.30 - 260.34)***

Strengthened existing DSW variances and Non-waste determinations to increase protectiveness and national consistency

## **5. *“Legitimate” Recycling Provision (40 CFR 261.2(g); 40 CFR 260.43)***

Prohibition on sham recycling and codified four factors of legitimate recycling.





# **Module 2:**

## **Under the Control of the Generator Exclusion**

- 
- **Generator-controlled exclusion applies to hazardous secondary materials reclaimed by the generator (261.4(a)(23)):**

- On-site
- Within the same company
- Within certain tolling manufacturing agreements

- **Does not apply to:**

- 1) Materials subject to exclusions at 261.4(a), and
- 2) Spent lead-acid batteries managed under Section 266 or universal waste

## **Conditions for the generator-controlled exclusion:**

- Legitimately recycle materials (includes new recordkeeping requirement)
  - All 4 factors are mandatory---must keep records for 3 years after operation ceases
- Not speculatively accumulate materials (includes new recordkeeping requirement)
- Submit notifications (using the Site ID form)
- Ensure materials are “contained” (according to the new codified definition)
- Reclaim materials within the United States
- Maintain records of shipments for recycling performed by the same company or per toll manufacturing agreements (new condition)
- Meet emergency preparedness and response requirements (new condition)



## What is “contained”?

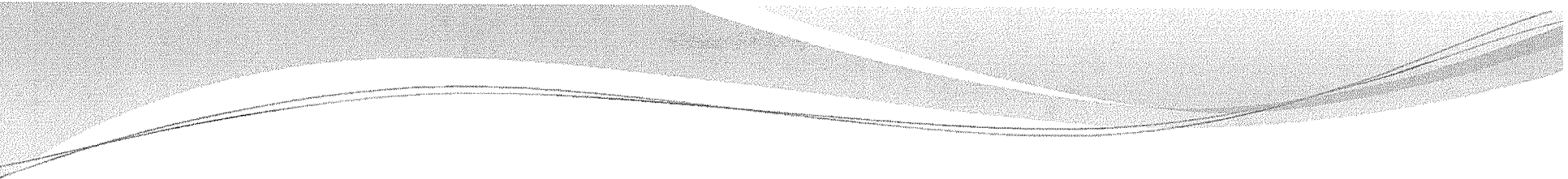
“Contained” definition is codified in 40 CFR 260.10:

- The unit is in **good condition**, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment.



# What is “contained” (continued)?

- The unit is **properly labeled** or otherwise has a system (such as a log) to immediately identify the hazardous secondary materials in the unit; and
- The unit holds hazardous secondary materials that are **compatible with other hazardous secondary materials placed in the unit** and is **compatible with the materials used to construct the unit** and addresses any potential risks of fires or explosions.
- Hazardous secondary materials in units that meet the hazardous waste tank and container standards are presumptively contained.



# **Module 3:**

## **Verified Recycler Exclusion**





# Verified Recycler Exclusion

Replaces the “transfer-based exclusion” for hazardous secondary materials sent to third parties for recycling.



## Verified Recycler Exclusion (continued)

- Under this exclusion, generators must:
  - Not speculatively accumulate materials (includes new recordkeeping requirement)
  - Submit notifications (using the Site ID form)
  - Ensure materials are “contained” (per the new codified definition)
  - Maintain records of off-site shipments and confirmations of receipt
  - Meet emergency preparedness and response requirements
  - Send hazardous secondary materials to verified recycling facilities that either have a RCRA permit or have obtained a variance

## Verified Recycler Exclusion (continued)

- Under this exclusion, reclaimers and intermediate facilities must:
  - Legitimately recycle materials
  - Not speculatively accumulate materials (includes new recordkeeping requirement)
  - Submit notifications (using the Site ID form)
  - Ensure materials are “contained” and managed in a manner at least as protective as analogous raw materials
  - Manage recycling residuals safely
  - Maintain records of shipments and send confirmations of receipt to generator
  - Have financial assurance
  - Have a RCRA permit or obtain a verified recycler variance



## Verified Recycler Exclusion (continued)

- The recycling facility has to be “verified” by EPA or an authorized State.
- Two ways to be “verified:”
  - Recycler has been granted a variance under 260.31(d), or
  - Reclamation facility is operating under a RCRA Permit.

## What are the criteria to obtain a DSW variance? (40 CFR 260.31(d))

- (1) Must demonstrate the recycling is legitimate
- (2) Have financial assurance in place to properly manage the hazardous secondary material,
- (3) **Not** have had any formal enforcement actions for RCRA violations in the previous 3 years and not be classified as a significant non-complier with RCRA Subtitle C, or must provide credible evidence that the facility will manage the hazardous secondary materials properly,
- (4) Must have the proper equipment, trained personnel, and meet emergency preparedness and response requirements to safely reclaim the material,
- (5) Must manage the residuals from reclamation properly, and
- (6) Must address risk to nearby communities from potential releases of the hazardous secondary material and in consideration of existing environmental stressors.



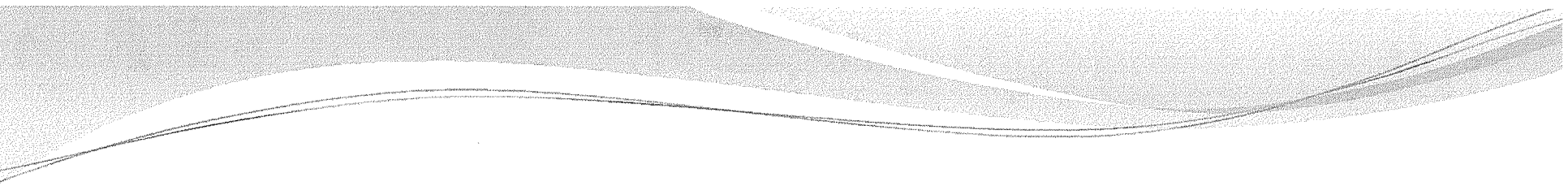
## Interstate transfer of excluded hazardous secondary materials

- If originating state has adopted the rule, but receiving (or transfer) state has not adopted:
  - HSM is subject to the hazardous waste requirements of the receiving state that has not adopted the rule upon reaching the border of that state (e.g., manifesting requirements).
  - MUST go to a RCRA permitted facility, and, if stored, materials must be managed in permitted storage units.
  - Excluded materials cannot go to an unpermitted recycling facility in a state that has not adopted the rule because such a facility would not meet the conditions of the exclusion (i.e., would not be verified).



# Interstate transfer of regulated hazardous waste

- If originating state has not adopted the rule, but receiving state has adopted:
  - Hazardous wastes **MUST** be managed as regulated hazardous waste in the receiving state that has adopted the rule.
  - The hazardous waste would not be eligible for the exclusion because the generator in the originating state that has not adopted would not meet the conditions and requirements of the exclusion (i.e., notification).



# **Module 4: Remanufacturing Exclusion For Spent Solvents**



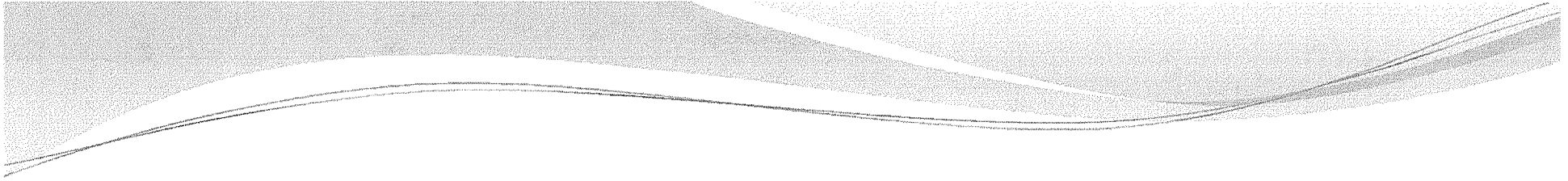
# Remanufacturing Exclusion

- The 2015 DSW rule added a new exclusion that allows the transfer of certain spent solvents from one manufacturer to another for “remanufacturing.”



## Remanufacturing Exclusion (continued)

- “Remanufacturing” means:
  - Processing a higher-value hazardous secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material.
- This exclusion does not apply to spent solvents sent to commercial recyclers.



The **remanufacturing exclusion** encourages the recycling of 18 higher-value hazardous spent solvents used for reacting, extracting, blending, or purifying chemicals in the pharmaceutical, organic chemical, plastics and resins, and the paint and coatings sectors (40 CFR 261.4(a)(27)).

# Eligible Solvents and Remanufacturers

The 18 eligible solvents are:

Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, NN-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, and/or methanol

The solvents were used in a commercial grade:

for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions)

The 4 eligible manufacturing sectors are:

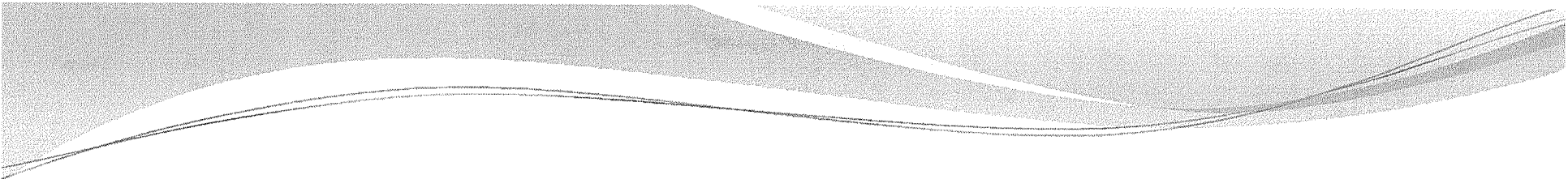
- Pharmaceutical manufacturing (NAICS 325412)
- Basic organic chemical manufacturing (NAICS 325199)
- Plastics and resin manufacturing (NAICS 325211)
- Paints and coatings manufacturing (NAICS 325510)



## Conditions for the Remanufacturing Exclusion

1. Both the generator and remanufacturer must **notify** using EPA form 8700-12 (Site Id form).
2. The generator and remanufacturer must jointly develop and maintain a **remanufacturing plan**.
3. Both generators and remanufacturers must maintain **record of shipments and confirmation of receipts** for 3 years.
4. The spent solvents must be managed in **RCRA-equivalent tanks and containers**, including meeting applicable air emission standards.
5. Spent solvents managed under this exclusion are subject to the **prohibition on speculative accumulation**.

\*After remanufacturing, the use of the remanufactured solvent can not involve cleaning or degreasing.



# **Module 5: DSW Variances and Non-Waste Determinations**

# Revisions to the Existing Variances and Non-Waste Determinations

The revisions include:

1. requiring facilities to **send a notice** to the Administrator (or State Director, if the state is authorized) and potentially re-apply for a variance **in the event of a change** in circumstances that affects how a hazardous secondary material meets the criteria upon which a solid waste variance has been based (40 CFR 260.33(c));
2. establishing a **fixed term** not to exceed ten years for variance and non-waste determinations, at the end of which facilities must re-apply for a variance or non-waste determination (40 CFR 260.33(d));



## Revisions to the Existing Variances and Non-Waste Determinations (continued)

3. requiring facilities to **re-notify every two years** with updated information (40 CFR 260.33(e));
4. revising the criteria for the **partial reclamation** variance in 40 CFR 260.31(c) to clarify when the variance applies and to require, among other things, that **all the criteria** for this variance **must be met**; and
5. for the non-waste determinations in 40 CFR 260.34, requiring that petitioners **demonstrate why the existing solid waste exclusions would not apply** to their hazardous secondary materials (40 CFR 260.34(b)(4) and (c)(5)).

Note, existing DSW variances granted under §260.30-34 are grandfathered.



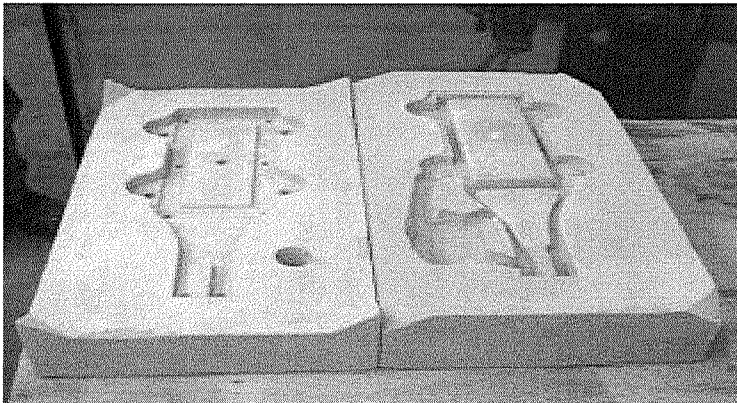
# **Module 5: Legitimate Recycling Provision**

# Key Environmental Issue: Sham recycling

**Sham recycling** (recycling that is not legitimate) is disposal of hazardous waste in the guise of recycling. Determining whether hazardous waste recycling is legitimate or sham depends on case-specific circumstances.

## Legitimate: Lead-contaminated foundry sands reused in foundry molds

In 2001, EPA issued a memo clarifying that the reuse of foundry sands for mold making in a facility's sand loop following normal industry practices is legitimate reuse.

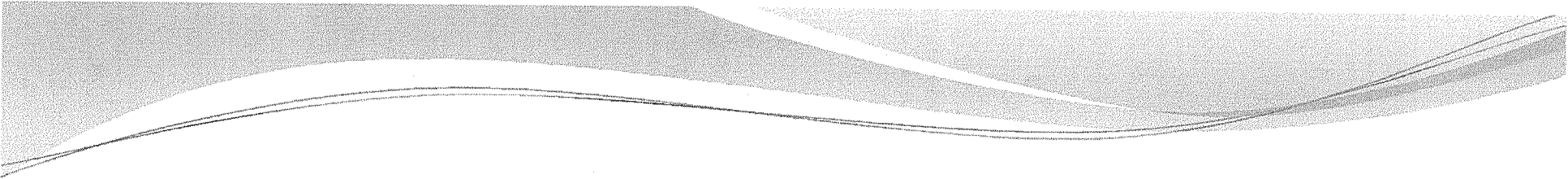


## Sham: Lead-contaminated foundry sands reused as playground sand

During 1997-1998, 375 tons of lead-contaminated foundry sand (with concentrations above the Toxicity Characteristic) were bagged and sold as play sand to 40 different retailers throughout Georgia, Virginia, North Carolina and South Carolina.





- 
- The legitimate recycling provision is codified at 40 CFR 260.43 and applicable to **ALL** hazardous secondary material and hazardous waste recycling.
  - It is a clarification and simplification of the long-standing policy for legitimate recycling.
  - Prohibition on sham recycling is codified at §261.2(g).



## Four Legitimacy Factors:

**Factor 1:** Materials must provide a useful contribution to the recycling process or to a product or intermediate (40 CFR 260.43(a)(1)).

**Factor 2:** Recycling must produce a valuable product or intermediate. (40 CFR 260.43(a)(2))

**Factor 3:** Materials must be managed as valuable commodities. (40 CFR 260.43(a)(3)).

**Factor 4:** Products of recycling must be comparable to legitimate products or intermediates. (40 CFR 260.43(a)(4)).



# What does it mean to meet the factors?

## **Factor 1**

Materials must provide a useful contribution to the recycling process or to a product or intermediate.

- **Material provides a useful contribution to the recycling process or a product or intermediate if it:**
  - Contributes valuable ingredients;
  - Replaces a catalyst or carrier in the recycling process;
  - Is a source of a valuable constituent recovered;
  - Is recovered or regenerated; **OR**
  - Is used as an effective substitute for a commercial product.

# What does it mean to meet the factors (continued)?

## **Factor 1**

- The hazardous constituent does not have to be what is being recycled.
  - For example: zinc recycled into micronutrient fertilizer from a hazardous secondary material can meet factor 1.
  - BUT, the recycler is responsible for proper management of any hazardous residuals.
- If two or more hazardous secondary material are blended together prior to recycling, both must meet Factor 1 and contribute to the final product or to the process.
  - This is in order to prevent blending to try and meet the factor.

# What does it mean to meet the factors (continued)?

## Factor 2

- **Recycling produces a valuable product or intermediate if it is:**
  - Sold to a third party; **OR**
  - Used by the recycler or generator as an effective substitute for a commercial product or as an ingredient or intermediate.
- A product can be a valuable intermediate if it is used in the process even if it has no value on the open market, but it has to have a real use in the process.

# What does it mean to meet the factors (continued)?

## **Factor 3**

- **Materials are managed as valuable commodities if:**
  - Where there is an analogous raw material, the material is managed consistently or in an equally protective manner; **OR**
  - Where there is no analogous raw material, the material is contained.
- For example:
  - If the hazardous secondary material is replacing a material that it resembles, it should be managed in the same way or in a way that is equally likely to prevent a release.
  - If the hazardous secondary material is a liquid replacing a material that is a solid, it must be contained.

# What does it mean to meet the factors (continued)?

## **Factor 4**

- The product of the recycling must be comparable to a legitimate product or intermediate.
- Five potential scenarios under which you can satisfy the requirements of Factor 4.

# What does it mean to meet the factors (continued)?

## **Factor 4:**

### *Scenario 1 Testing/ Knowledge*

*There is an analogous product (40 CFR 260.43(a)(4)(i)).*

- **The product of recycling is comparable to a legitimate product or intermediate if:**
  - You can show through testing or generator knowledge that the product does not exhibit a hazardous characteristic that the analogous product does not exhibit and the concentrations of hazardous constituents are comparable or lower than those in analogous products.

EXAMPLE: a manufacturer uses a clean hazardous secondary solvent to replace a virgin solvent in process. The manufacturer must ensure that the final product has no higher levels of hazardous constituents than when it was made with the virgin solvent and has no different hazardous characteristics.



# What does it mean to meet the factors (continued)?

## **Factor 4:**

*Scenario 2 Commodity Standards Addressing Hazardous Constituents*

*There is an analogous product (40 CFR 260.43(a)(4)(i)).*

- **The product of recycling is comparable to a legitimate product or intermediate if:**
  - The product meets widely-recognized commodity standards that address any hazardous constituents that are present due to use of the hazardous secondary material in the process.

# What does it mean to meet the factors (continued)?

## **Factor 4:**

### *Scenario 3 Commodity Standards*

*There is no analogous product (40 CFR 260.43(a)(4)(ii)).*

- **The product of recycling is comparable to a legitimate product or intermediate if:**
  - The product is a commodity that meets widely-recognized commodity standards.
  - Widely-recognized commodity standards might be designed by a national or international standard organization such as ASTI or ASTM.
    - In some cases of highly specialized products, specific customer specifications could be sufficient.

# What does it mean to meet the factors (continued)?

## **Factor 4**

*Scenario 4 Returned to the original process*

*There is no analogous product (40 CFR 260.43(a)(4)(ii)).*

- **The product of recycling is comparable to a legitimate product or intermediate if:**
  - The product is returned to the original process from which it was generated.
  - When a material is returned to the original process from which it was generated without further processing, it ensures that no new contaminants are entering the system.
  - **EXAMPLES:**
    - Mining and mineral processing often return residuals from one step into the process for further extraction.
    - Closed loop recycling.

# What does it mean to meet the factors (continued)?

## **Factor 4**

*Scenario 5—Analysis, Documentation, and Notification Process*  
(40 CFR 260.43(a)(4)(iii))

If the product has levels of hazardous constituents that are not comparable or unable to be compared to a legitimate product, but the recycling is still legitimate, the person doing the recycling must:

- Conduct the necessary assessment and prepare documentation showing why the recycling is still legitimate.
- The documentation must include a certification statement that the recycling is legitimate and be maintained on-site for 3 years after the recycling has ceased.
- The person performing the recycling must notify EPA or the authorized State.



# **Module 6:**

## **Status and Implementation of the DSW Rule**



## State Authorization of the DSW Final Rule

- Because the 2015 DSW rule is more stringent than the 2008 DSW rule, states that adopted the 2008 DSW rule (Idaho, Illinois, New Jersey, and Pennsylvania) will be required to modify their programs to be at least as stringent as the federal program.



## State Authorization of the DSW Final Rule

- All states will be required to adopt at minimum those provisions in the 2015 DSW rule that are more stringent than the current hazardous waste program:
  - (1) Prohibition of sham recycling,
  - (2) The definition of legitimate recycling (including contained definition),
  - (3) Accumulation date tracking requirement for speculative accumulation provisions, and
  - (4) Changes to the standards and criteria for the solid waste variance and non-waste determinations.
- In general, the exclusions in the final rule do not go into effect unless and until the authorized state adopts them.



## Training/Guidance

- Office of Resource Conservation & Recovery (ORCR) is providing training for states and regions, as well as the regulated community.
- Frequently Asked Questions (FAQs) regarding the 2015 DSW rule are posted on EPA's website:
- <http://www2.epa.gov/hwgenerators/final-rule-2015-definition-solid-waste-dsw>
- New materials will be added to help facilities and regulatory program staff understand the new requirements in the rule.



# Questions???

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