Overview of the 2015 Definition of Solid Waste Final Rule

Office of Resource Conservation and Recovery
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: DSW Variances/Non-waste Determinations
Module 7: Notification & Recordkeeping
Module 8: Status and Implementation of the DSW Rule

Note: This slide presentation is provided by the EPA for the convenience of the regulated community. It is not a regulation, nor can it be considered a substitute for the actual regulations, themselves, or for related laws and applicable court decisions.
Module 1: Goals & Background for the DSW rule
Goals of the DSW Rule

– To better define when hazardous secondary materials being recycled are discarded and regulated by EPA

– To encourage legitimate reclamation of hazardous wastes
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
About the 2015 DSW Exclusions (cont.)

• Are limited to reclamation and do not include burning for energy recovery or “use constituting disposal” (i.e., materials used directly on the land)

• A material is “reclaimed” if it is processed to recover a usable product or if it is regenerated. This includes:
  • Regeneration (e.g., distillation) of spent solvents
  • Regeneration of spent acids
  • Recovery of metals from metal-bearing wastes
Background of the DSW Rule

• Under the Resource Conservation and Recovery Act (RCRA), EPA has the authority to regulate solid wastes. RCRA defines solid waste as:

“…any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material… resulting from industrial, commercial, mining, and agricultural operations, and from community activities…” (RCRA Section 1004 (27) (emphasis added)).

• A key issue since the 1980’s is when recycling or reuse constitutes “discard” and therefore is potentially subject to RCRA regulation.
Background of the DSW Rule

• Several court decisions have provided direction about when recycling of hazardous secondary materials resembles manufacturing and when it resembles discard.

• The DSW final rule defines when hazardous secondary materials that are reclaimed have been discarded and are therefore solid and hazardous wastes under RCRA authority.
History of the DSW Rule

**Previous twenty years**

- 2003: Several court decisions on when a material is a “solid waste”
- 2007: EPA conducts recycling studies
- 2008: Oct 2008 DSW final rule
- 2009: July 2011 DSW reproposal responding to Sierra Club administrative petition
- 2011: January 2011: Sierra Club petitions EPA to repeal DSW rule; Sierra Club and API file lawsuits
The DSW final rule was published on January 13, 2015 (80 FR 1694).
The rule will be federally effective on July 13, 2015.
However, the exclusions do not go into effect in an authorized state unless and until the state adopts the rule. The more stringent provisions go into effect when the state adopts the rule.
Facilities currently operating under the generator-controlled exclusion or transfer-based exclusion in states (e.g., New Jersey) that adopted the 2008 rule but have not been authorized must comply with the new, more stringent requirements for those exclusions.
<table>
<thead>
<tr>
<th>What hazardous secondary materials are eligible for the new DSW exclusions?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>• Spent materials (e.g., spent solvents, spent acids) being reclaimed (e.g., regenerated)</td>
</tr>
<tr>
<td>• Listed sludges (e.g., electric arc furnace dust) being reclaimed (e.g., metals recovery)</td>
</tr>
<tr>
<td>• Listed byproducts being reclaimed</td>
</tr>
<tr>
<td>• Spent petroleum catalysts (K171, K172)</td>
</tr>
<tr>
<td>• Metals recovery in smelting, melting and refining furnaces that meet the BIF exclusion requirements found in 40 CFR 266.100(d) and 266.112</td>
</tr>
</tbody>
</table>

| • Materials burned for energy recovery or “use constituting disposal” | ✔ |
| • Inherently waste-like materials (e.g., dioxins) | ✔ |
| • Materials already excluded under 40 CFR 261.4 | ✔ |
| • Spent lead-acid batteries | ✔ |
| • Materials managed in thermal treatment units that involve destruction of hazardous constituents (e.g., carbon regeneration units) | ✔ |
Major Components of the DSW Rule

1. **Under the Control of the Generator Exclusion**
   Strengthened the self-implementing exclusion for materials generated and reclaimed under the control of the generator

2. **Verified Recycler Exclusion**
   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**
   Exclusion for certain higher-value spent solvents remanufactured into commercial grade products

4. **“Legitimate” Recycling Provision**
   Codified four factors of legitimate recycling and prohibition on sham recycling

5. **Variances and Non-Waste Determinations**
   Strengthened existing DSW variances and Non-waste determinations to increase protectiveness and national consistency
Module 2:
Under the Control of the Generator
Exclusion
Generator-controlled Exclusion

• *Includes hazardous secondary materials that are generated and reclaimed*…
  
  – at the same facility (may be leased), including onsite contractors
  
  – by the same company (even at different facilities) if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are under common control
  
  – under certain toll manufacturing arrangements
### Recycling Must be Legitimate

<table>
<thead>
<tr>
<th><strong>Generator Hazardous Waste Regulations</strong></th>
<th><strong>DSW Generator-Controlled Exclusion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be legitimately recycled according to codified definition in 40 CFR 260.43</td>
<td>Must be legitimately recycled according to codified definition in 40 CFR 260.43</td>
</tr>
<tr>
<td></td>
<td>Must maintain documentation of their legitimacy determination on-site</td>
</tr>
</tbody>
</table>
Storage

Generator Hazardous Waste Regulations

Must not store more than 90/180 days if an LQG/SQG

Must meet specific storage standards in 40 CFR 262

DSW Generator-Controlled Exclusion

Must meet speculative accumulation limits, including label indicating the first date material began to be accumulated

Materials must be “contained”

Must meet legitimacy factor 3: “materials must be managed as a valuable commodity”
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. Unpermitted releases are releases that are not covered by a permit (such as a permit to discharge to water or air) and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures;
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.
### Generator Hazardous Waste Regulations

- SQGs must meet the following requirements, including:
  - Test and maintain emergency equipment
  - Make arrangements with local authorities
  - Have an emergency coordinator
  - Report any releases

- LQGs must also meet the following requirements, including:
  - Meet specific personnel training standards
  - Prepare a contingency plan and submit it to local emergency responders

### DSW Generator-Controlled Exclusion

Similar to the Generator requirements, depending on how much hazardous secondary material (HSM) is accumulated on-site:

- < 6,000 kg of HSM must meet SQG requirements for emergency preparedness and response
- > 6,000 kg of HSM must meet LQG requirements for emergency preparedness and response
Module 2: Under the Control of the Generator Exclusion

Notification / Reporting

**Generator Hazardous Waste Regulations**

- Must submit a Site ID form.

**DSW Generator-Controlled Exclusion**

- Must submit a Site ID form:
  - Prior to managing hazardous secondary materials under the exclusion
  - Every other year thereafter
  - Within 30 days of stopping management under the exclusion

LQGs must submit a Biennial Report every other year
<table>
<thead>
<tr>
<th>Exports</th>
<th>Generator Hazardous Waste Regulations</th>
<th>DSW Generator-Controlled Exclusion</th>
</tr>
</thead>
</table>
New Requirements for Facilities Operating under the 2008 DSW Generator-Control Exclusion

Companies operating under the 2008 generator-controlled exclusion at 40 CFR 261.4(a)(23) may continue to do so under the new rule provided they continue to meet the conditions of the 2008 generator-controlled exclusion and also:

1. Store hazardous secondary materials in accordance with the codified definition of “contained” found in 40 CFR 260.10;
2. Meet emergency preparedness and response provisions found in 40 CFR part 261 Subpart M;
3. Meet the new recordkeeping requirements for speculative accumulation found in 40 CFR 261.1(c)(8);
4. If recycling within the same company or under a tolling agreement, maintain records of shipments (both sent and received) for three years; and
5. Maintain documentation of legitimate recycling on-site. Documentation must be a written description of how the recycling meets all four factors in § 260.43(a) and must be maintained for three years after the recycling operation has ceased.
Module 3:
Verified Recycler Exclusion
Verified Recycler Exclusion

• Covers hazardous secondary materials that are generated and transferred to a verified reclamation facility for reclamation

• Generators and reclaimers must comply with all the conditions and requirements of the generator-controlled exclusion, including:
  – Legitimate recycling
  – Speculative accumulation limits & recordkeeping
  – Notification
  – Materials must be “contained”

• Plus…
<table>
<thead>
<tr>
<th><strong>Generator Hazardous Waste Regulations</strong></th>
<th><strong>DSW Verified Recycler Exclusion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Must send materials to a facility with a RCRA permit, if the reclamation facility is storing materials prior to recycling.</td>
<td>Can send hazardous secondary materials to a RCRA permitted TSDF or to a recycler who has obtained a variance from EPA or the state.</td>
</tr>
<tr>
<td>May send materials to a facility without a RCRA permit, if the reclamation facility is not storing materials prior to recycling. (However, the reclamation facility must meet AA, BB air emission control standards.)</td>
<td>To obtain a variance, the recycler must demonstrate to EPA or the state that they meet 6 criteria showing they intend to safely and legitimately reclaim the materials.</td>
</tr>
<tr>
<td>Note: This is because the recycling process is generally exempt under 40 CFR 261.6.</td>
<td>Intermediate facilities must also be permitted or obtain a variance.</td>
</tr>
</tbody>
</table>
What are the criteria to obtain a DSW variance?

(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.
What are “intermediate facilities”?

- Intermediate facilities are facilities that store materials for more than 10 days, but do not generate or reclaim the materials.

- Intermediate facilities do not include transfer facilities, which hold materials during the normal course of transportation for less than 10 days.

- Intermediate facilities must comply with the same conditions as a reclamer (e.g., notification, financial assurance, recordkeeping), including being “verified” by either obtaining a RCRA permit or a DSW variance from EPA or the authorized state.
<table>
<thead>
<tr>
<th><strong>Generator Hazardous Waste Regulations</strong></th>
<th><strong>DSW Verified Recycler Exclusion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Must use a manifest and maintain copies for 3 years.</td>
<td>Must maintain records of shipments for three years.</td>
</tr>
<tr>
<td></td>
<td>Must maintain confirmations of receipt from the reclamation facility and any intermediate facility for three years.</td>
</tr>
<tr>
<td></td>
<td>Must comply with DOT regulations.</td>
</tr>
</tbody>
</table>
• Under the verified recycler exclusion, reclaimers and intermediate facilities must:

  – Legitimately recycle materials (reclaimers)
  – Not speculatively accumulate materials
  – 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 (reclaimers)
  – Maintain records of shipments and send confirmations of receipt to generator
  – Have financial assurance
  – Must have a RCRA permit or obtain a DSW variance
Module 3: Verified Recycler Exclusion

Exports

<table>
<thead>
<tr>
<th>Generator Hazardous Waste Regulations</th>
<th>DSW Verified Recycler Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must provide notice and receive consent.</td>
<td>Not allowed.</td>
</tr>
<tr>
<td>Must file annual reports.</td>
<td></td>
</tr>
<tr>
<td>Must file exception reports.</td>
<td></td>
</tr>
<tr>
<td>Must use a manifest.</td>
<td></td>
</tr>
</tbody>
</table>
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).
<table>
<thead>
<tr>
<th>Subtitle C Regulation Requirements for GENERATORS</th>
<th>Verified Recycler Exclusion Conditions for GENERATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be legitimately recycling per 260.43</td>
<td>Must be legitimately recycling per 260.43</td>
</tr>
<tr>
<td>Cannot accumulate waste for more than 90 days without a permit</td>
<td>Must meet speculative accumulation limits &amp; recordkeeping</td>
</tr>
<tr>
<td>Must meet specific storage standards for tanks and containers</td>
<td>Hazardous secondary materials must be contained</td>
</tr>
<tr>
<td>Must have emergency coordinator, test and maintain emergency equipment, and have emergency and personnel training plans</td>
<td>Must comply with equivalent SQG or LQG emergency preparedness and response requirements, depending on the amount of HSM accumulated on-site at any one time</td>
</tr>
<tr>
<td>Applicable DOT regulations for transport</td>
<td>Applicable DOT regulations for transport</td>
</tr>
</tbody>
</table>
| Manifest required  
Exception Reporting | Records of shipments off-site  
Confirmations of receipt |
| One-time notification  
Biennial Reporting | Notification every two years |
| Three-year record retention | Three-year record retention |
| Must ship hazardous waste to a TSDF (if TSD is storing prior to recycling) | Must either ship to a TSDF or recycler that has obtained a DSW variance from EPA or the state |
| Exports  
 o Notice & consent  
 o Annual reports  
 o Manifesting  
 o Exception Reports | Exports  
 o Not allowed |
<table>
<thead>
<tr>
<th>Subtitle C Regulation Requirements for RECLAIMERS AND STORAGE FACILITIES</th>
<th>Verified Recycler Exclusion Requirements for RECLAIMERS AND INTERMEDIATE FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be legitimately recycling per 260.43</td>
<td>Must be legitimately recycling per 260.43</td>
</tr>
<tr>
<td>Must obtain Subtitle C permit (if storing prior to recycling)</td>
<td>Permit or DSW variance is required</td>
</tr>
<tr>
<td>Waste analysis plan</td>
<td>No specific DSW requirements; MSDS reporting requirements in 40 CFR 370 may apply</td>
</tr>
<tr>
<td>Security measures</td>
<td>No specific DSW requirements; DOT transportation security requirements in 49 CFR 172 may apply</td>
</tr>
<tr>
<td>Financial assurance</td>
<td>Financial assurance (modified)</td>
</tr>
<tr>
<td>Must have emergency coordinator, test and maintain emergency equipment, and have emergency and personnel training plans</td>
<td>Must comply with equivalent SQG or LQG emergency preparedness and response requirements, depending on the amount of HSM accumulated on-site at any one time</td>
</tr>
<tr>
<td>Manifest requirements</td>
<td>Shipping records and confirmations of receipt required</td>
</tr>
</tbody>
</table>
| Operating record  
Biennial report  
Three-year record retention | Notification every two years  
Three-year record retention |
| Specific design standards for tanks, containers, containment buildings, surface impoundments and inspection requirements. | Hazardous secondary materials must be contained and managed in a manner at least as protective as analogous raw materials. |
Procedure for Obtaining a Verified Recycler Variance

To obtain a verified recycler variance, a recycler or intermediate facility must follow the existing variance procedures in 40 CFR 260.33:

1. The applicant must submit an application to the EPA Administrator (or State Director, in an authorized state) addressing each of the verified recycler variance criteria.

2. EPA or the authorized state will evaluate the applicant and issue a draft notice tentatively granting or denying the application. Notification will be provided by newspaper advertisement or radio broadcast in the locality where the facility is located.

3. There will be a 30 day comment period, and a public hearing upon request.

4. EPA or the authorized state will issue a final decision after receipt of the comments and after the hearing (if any).
New Requirements for Facilities Operating under the 2008 DSW Transfer-Based Exclusion

Generators operating under the transfer-based exclusion at 40 CFR 261.4(a)(24) may operate under the new verified recycler exclusion if they continue to meet the conditions of the 2008 transfer-based exclusion and also:

1. Store hazardous secondary materials in accordance with the codified definition of “contained” found in 40 CFR 260.10;

2. Meet emergency preparedness and response conditions found in 40 CFR part 261 Subpart M;

3. Meet the new recordkeeping requirements for speculative accumulation found in 40 CFR 261.1(c)(8); and

4. Transport hazardous secondary materials to a reclamation facility with a RCRA Subtitle C permit that addresses the management of the excluded hazardous secondary material or a facility with a verified recycler variance.

Note: Because reclamation facilities will now either have a RCRA permit or a variance, generators are no longer required to conduct a "reasonable efforts" environmental audit. In other words, the oversight provided by “reasonable efforts” requirement is conducted by EPA or the authorized state in a regulatory setting.
Reclamation and intermediate facilities operating under the transfer-based exclusion at 40 CFR 261.4(a)(24) may operate under the new verified recycler exclusion if they continue to meet the conditions of the 2008 transfer-based exclusion and also:

1. Store hazardous secondary materials in accordance with the codified definition of “contained” found in 40 CFR 260.10;

2. Meet emergency preparedness and response conditions found in 40 CFR part 261 Subpart M;

3. Meet the new recordkeeping requirements for speculative accumulation found in 40 CFR 261.1(c)(8); and

4. Possess a RCRA Subtitle C permit that addresses the management of the excluded hazardous secondary material or obtain a verified recycler variance from the state or EPA.
New Requirements for Facilities Operating under the 2008 DSW Transfer-Based Exclusion (continued)

Under the new rule, the export provision previously found under 40 CFR 261.4(a)(25) have been removed, and companies can no longer export hazardous secondary material under the verified recycler exclusion. They must either switch to domestic recycling under a DSW exclusion or manage their exported material as hazardous waste.
Module 4: Remanufacturing Exclusion
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)).

- The production and the disposal of solvents covered by this exclusion currently requires large amounts of energy and the solvents are used in very high volumes.

  - For example, pharmaceutical manufacturers use at least 100 kg of solvents to make 1 kg of active pharmaceutical ingredient.
  - Because of their origin, these solvents are only lightly contaminated and need minimal processing to be returned to a commercial-grade product.

- Greenhouse gas reductions and energy and resource savings result from maximizing the number of uses of a high-purity grade chemical product as an aid to chemical manufacturing and processing.
Eligible Solvents and Remanufacturers

The 18 eligible solvents are:
- Toluene, xylene, 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.

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.
<table>
<thead>
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<th>Remanufacturing Exclusion Conditions for GENERATORS</th>
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</tr>
<tr>
<td>Cannot accumulate waste for more than 90 days without a permit</td>
<td>Must meet speculative accumulation limits &amp; recordkeeping</td>
</tr>
<tr>
<td>Must meet specific storage standards for tanks and containers</td>
<td>Must be managed in RCRA-equivalent tanks and containers, including meeting applicable air emission standards</td>
</tr>
<tr>
<td>Must have emergency coordinator, test and maintain emergency equipment, and have emergency and personnel training plans</td>
<td>No specific RCRA emergency response requirements but must have joint remanufacturing plan in place; OSHA may apply</td>
</tr>
<tr>
<td>Applicable DOT regulations for transport</td>
<td>Applicable DOT regulations for transport</td>
</tr>
<tr>
<td>Manifest required Exception Reporting</td>
<td>Records of shipments off-site Confirmations of receipt</td>
</tr>
<tr>
<td>One-time notification Biennial Reporting</td>
<td>Notification every two years</td>
</tr>
<tr>
<td>Three-year record retention</td>
<td>Three-year record retention</td>
</tr>
<tr>
<td>Must ship hazardous waste to a TSDF (if TSD is storing prior to recycling)</td>
<td>Must ship to a remanufacturer who has notified that he is operating under the remanufacturing exclusion</td>
</tr>
</tbody>
</table>
| Exports  
  - Notice & consent  
  - Annual reports  
  - Manifesting Exception Reports | Exports  
  - Not allowed |
<table>
<thead>
<tr>
<th>Subtitle C Regulation Requirements for RECLAIMERS AND STORAGE FACILITIES</th>
<th>Remanufacturing Exclusion Requirements for REMANUFACTURERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be legitimately recycling per 260.43</td>
<td>Must be legitimately recycling per 260.43</td>
</tr>
<tr>
<td>Must obtain Subtitle C permit (if storing prior to recycling)</td>
<td>No permit required; must have joint remanufacturing plan in place</td>
</tr>
<tr>
<td>Waste analysis plan</td>
<td>No specific DSW requirements; MSDS reporting requirements in 40 CFR 370 may apply</td>
</tr>
<tr>
<td>Security measures</td>
<td>No specific DSW requirements; DOT transportation security requirements in 49 CFR 172 may apply</td>
</tr>
<tr>
<td>Financial assurance</td>
<td>Financial assurance not required</td>
</tr>
<tr>
<td>Must have emergency coordinator, test and maintain emergency equipment, and have emergency and personnel training plans</td>
<td>No specific RCRA requirements. OSHA may apply</td>
</tr>
<tr>
<td>Manifest requirements</td>
<td>Shipping records and confirmations of receipt required</td>
</tr>
<tr>
<td>Operating record</td>
<td>Notification every two years</td>
</tr>
<tr>
<td>Biennial report</td>
<td>Three-year record retention</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Specific design standards for tanks, containers, containment buildings, surface impoundments and inspection requirements</td>
<td>Hazardous secondary materials must be managed in RCRA-equivalent tanks and containers, including meeting applicable air emission standards</td>
</tr>
</tbody>
</table>
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.
- Factor 2: Recycling must produce a valuable product or intermediate.
- Factor 3: Materials must be managed as valuable commodities.
- Factor 4: Products of recycling must be comparable to legitimate products or intermediates.
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.
  – For example: a sub-standard cinder block being used to build a building to store more cinder blocks is not a valuable product.
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 recycling is comparable to a legitimate product or intermediate if:
  - Where there is an analogous product, 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 or at levels of widely recognized commodities (that address those hazardous constituents).
  
  - For example, a manufacturer uses a very 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

• The product of recycling is comparable to a legitimate product or intermediate if:
  – Where there is an analogous product, 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

• The product of recycling is comparable to a legitimate product or intermediate if:
  – Where there is not an analogous product, the product is a commodity that meets widely-recognized commodity standards or is returned to the original process from which it was generated.

  – 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**

- The product of recycling is comparable to a legitimate product or intermediate if:
  - Where there is not an analogous product, the product is a commodity that meets widely-recognized commodity standards or 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 than no new contaminants are entering the system.
    - Mining and mineral processing often return residuals from one step into the process for further extraction.
    - Closed loop recycling also fits here.
What if the recycling does not meet Factor 4?

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. For example, the recycler can show the recycling is still legitimate due to the lack of exposure from toxics in the products, the lack of the bioavailability of toxics in the products, or other relevant considerations.

– The documentation must contain a certification 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 state.
Module 6: 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;

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

3. requiring facilities to **re-notify every two years** with updated information;

4. revising the criteria for the **partial reclamation** variance 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.

Note, existing DSW variances under §260.30-34 are grandfathered.
Module 7:
Notification and Recordkeeping
<table>
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What is the “notification”?

• Facilities must send a notification prior to operating under the exclusion and by March 1 of each even-numbered year thereafter to the Regional Administrator using the Site ID form (EPA Form 8700-12).

• Information submitted in the notifications enables EPA and states to:
  – (1) monitor compliance of facilities;
  – (2) compile credible information for the public;
  – (3) measure performance and impacts of the rulemaking; and,
  – (4) target future program efforts to achieve further increases in recycling.
Notifications must include the following information:

1. Name, address and EPA ID number (if applicable);
2. Name and telephone number of a contact person;
3. NAICS code;
4. Type of exclusion(s) the facility is claiming;
5. Whether the reclaimer/intermediate facility has financial assurance;
6. When the facility expects to begin managing materials;
7. A list of hazardous secondary materials to be managed;
8. Whether the materials will be managed in a land-based unit;
9. The quantity of materials to be managed annually; and
10. The certification (included in EPA form 8700-12) signed by an authorized representative.
Interim Procedure for Submitting Notifications under the 2015 Definition of Solid Waste Final Rule

• Because the process to update the Site ID form to reflect the new 2015 DSW final rule will not be completed by the time some facilities are required to notify, EPA will issue an interim procedure to explain how facilities should use the existing Site ID form to meet the notification requirement.

• Facilities that have previously submitted a notification under the 2008 DSW final rule will not have to submit a new notification but instead can simply update their information in their next renotification, due by March 1, 2016.

• Facilities notifying for the exclusions, variances and non-waste determinations will use the facility codes from the interim guidance, rather than from the current form.

• Facilities notifying that their recycling process has hazardous constituents that are not comparable or unable to be compared to a legitimate product or intermediate, but which is still legitimate recycling under 40 CFR 260.43(a)(4)(iii) will use the comment section (Item 13 on the form).
What are the “certifying statements”? 

• If a generator is managing HSM under the “same company” or under a tolling arrangement, he must certify a statement included in 40 CFR 260.10.  

• Example:  
  “On behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclamer facility name], which is controlled by [insert generator facility name] and that [insert the name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material.” 

• If a generator or recycler does not meet Legitimacy Factor 4 but is still legitimate, he must certify the legitimacy documentation maintained on-site.
What are the “certifying statements”? (cont.)

• If a remanufacturer is remanufacturing a spent solvent under the remanufacturing exclusion, he must include a certification in the jointly developed remanufacturing plan.

• Example:

  “on behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510), and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) or for use as product ingredient(s)...”
What are “records of shipments”?  

- These records may consist of routine business records but must contain the following information:
  
  - Name of the transporter and date of the shipment;
  - Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent; and
  - The type and quantity of hazardous secondary material in the shipment.
What are “confirmations of receipt”? 

• These records can be fulfilled by routine business records but must contain the following information:
  
  • the name and address of the reclaimer (or intermediate facility);
  • the type and quantity of the hazardous secondary materials received; and
  • the date which the hazardous secondary materials were received.
Module 8: 
Status and Implementation of the DSW 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.

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 and the definition of legitimate recycling (including contained definition), (2) accumulation date tracking requirement for speculative accumulation provisions, and (3) 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.
Notifications

• As of November 2014, we have received 28 DSW notifications for facilities using the 2008 DSW exclusions in New Jersey:
  – 4 generating and reclaiming onsite
  – 3 generating and reclaiming within the same company
  – 22 generating and transferring off-site
  – 2 reclaimers receiving from off-site
  (Note: Some facilities notified as more than one facility type and thus are counted more than once.)

• Most hazardous secondary materials being reclaimed are spent solvents, electric arc furnace dust, and other metal-bearing wastes.

• These facilities can continue to recycle under the 2015 exclusions if they meet the more stringent conditions.
Module 8: Status & Implementation

Guidance

Website: http://www.epa.gov/osw/hazard/dsw/rulemaking.htm
Training/Guidance

• ORCR is providing training for states and regions, as well as the regulated community.

• We posted Frequently Asked Questions (FAQs) regarding the 2015 DSW rule on our website. We expect to add to these FAQs as states adopt the rule.

• We will be updating other materials to help facilities and regulatory program staff understand the new requirements in the rule.
Guidance

• Developed a brochure for generators on how to choose a responsible recycler.

What to ask when choosing a recycler

LEARN the basics.
Can the recycler give you a general description of its business, including a point of contact, number of employees, years in business and ownership history, site information and history, summary of operations, services offered, etc.?

Can the recycler provide the facility’s compliance record with federal and state environmental and occupational safety regulations? Does the facility’s record indicate a commitment to sound environmental stewardship?

UNDERSTAND the recycling process.
Does the recycler normally accept the materials you want recycled?
After receiving your materials, does the recycler track them through its process?
Can the recycler describe its processes and procedures for recycling, reuse, or resale?
Does the recycler have environmental, health, and safety management systems in place to ensure environmentally sound management practices?

ASK about what happens afterwards.
Is there a reliable market for the salvable products or intermediates that are made from recycling your hazardous secondary material?
Are residuals, if any, generated from the recycling process, managed in a manner that is protective of human health and the environment?
Can the recycler provide names and locations of businesses, landfills, or incinerators to which it sends products and/or residuals?
Can the recycler supply certification of final disposition for your materials, if necessary?

CONSIDER a few other things.
Are you interested in verifying information through an onsite evaluation, such as an environmental compliance audit? Do you want to check the facility’s record in EPA’s public databases (such as http://epa.gov/hazardouswaste/recycling) or state databases?
Does the recycler maintain appropriate environmental liability insurance, and are mechanisms in place to ensure clean-up costs would be covered if the facility unexpectedly closes or has to perform an environmental clean-up?

Want more information?
Visit EPA’s general hazardous materials recycling Web site at http://www.epa.gov/hazardouswaste/recycling
Review a recycler’s compliance status with EPA at http://www.epa-echo.gov/echo/
For additional information on the DSW rule, contact:

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<td><a href="mailto:atagi.tracy@epa.gov">atagi.tracy@epa.gov</a></td>
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<td>Mary Beth Sheridan</td>
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