



# DEEP's New Regulation for Solvent-Contaminated Wipes

Ross Bunnell, Sanitary Engineer 3

CT DEEP / Waste Engineering & Enforcement Division

November 2, 2017

# An Age-Old Question: What to Do with Solvent-Contaminated Wipes?

- “Wipes” = cloth, paper, or “non-woven” wipes.
- Generated EVERYWHERE.
- Since the 1980s, EPA and states recognized this waste was a technically hazardous, but marginal hazardous waste stream.
- Industry pressed EPA for regulatory relief.
- EPA was concerned about proper management, but didn’t want to discourage reuse (e.g., launderable rags).
- While EPA evaluated alternatives, they allowed states to adopt interpretive policies on launderable wipes ([1994 EPA memo](#)).
- CT had a [written policy](#) in effect beginning in 1995.



# Management of Wipes under DEEP's Policy

- Disposable wipes were subject to full regulation as hazardous waste.
  - “Contained in” rule said solvent listings apply even if the wipes no longer contain significant amounts of solvent.
  - Example: acetone wipes (F003).
- Launderable wipes:
  - Could be transported by haulers that did not have DEEP transporter permits.
  - Could be sent to laundries that did not have TSD treatment permits (subject to wastewater discharge permitting).
  - Had to be managed as hazardous waste while stored on-site.



# 11/20/2003 EPA Proposed Rule

- DEEP commented on the proposed rule.
- Generally supported provisions for launderable wipes.
- Did not support the provisions for disposable wipes:
  - No provisions to prevent over-accumulation.
  - Lack of accountability as compared to launderable wipes.
  - Sets a precedent that could undermine RCRA requirements for LDRs and “contained in” listed wastes.
- DEEP suggested management as Universal Waste.
- Concerns about using plastic or cloth bags to ship wipes.
- Containers should be rigid, non-leaking, and closed.
- Containers should be marked with the accumulation start date.



# 11/20/2003 EPA Proposed Rule (Cont.)

- Generators should maintain records documenting the amounts of wipes shipped off-site.
- Raised questions about the relationship between the proposed rule and existing federal used oil rules regarding “materials containing or otherwise contaminated with used oil.”



# EPA Actions in Response to Comments

- 10/27/2009: Revised its Risk Analysis for disposable wipes and sludge from the laundering of reusable wipes.
- 7/31/2013: [Final EPA Rule on Solvent-Contaminated Wipes.](#)
  - Effective federally on 1/31/2014.
  - Considered less stringent than existing federal rules.
  - Therefore, not effective in authorized states (e.g., CT), until they formally adopt the new rule.
  - However, EPA memo allowing states to enact policies for launderable rags would expire as of 7/1/2015.



# Provisions of EPA's Final Rule

- Conditional Exclusion from the definition of hazardous waste for disposable wipes.
- Conditional Exclusion from the definition of solid waste for reusable (i.e., launderable) wipes.
- “Wipe” = woven or non-woven shop towel, rag, pad or swab made of wood pulp, fabric, cotton, polyester or other material.
- “Solvent Contaminated Wipe”:
  - Contains one or more of the F001-F005 listed solvents and their U-listed counterparts;
  - Is characteristically hazardous resulting from one of these solvents; or,
  - Exhibits the characteristic of ignitability due to a non-listed solvent.



# Provisions of EPA's Final Rule (Cont.)

- Wipes are not eligible if they contain:
  - Trichloroethylene and are being sent for disposal (OK if being laundered).
  - Hazardous for anything else (e.g., TCLP metals).
- Conditions for the exclusion:
  - Stored and transported in non-leaking, closed containers that are capable of containing any free liquids.
  - Containers must be closed except when adding or removing wipes.
  - Containers must be sealed when full and during transportation.
  - Labeled “Excluded Solvent-Contaminated Wipes.”
  - 180-day accumulation time limit.
  - No free liquids at the time of being sent for disposal or cleaning.
  - Free liquids may be removed and must be managed as hazardous waste.



# Provisions of the Final Rule (Cont.)

- Other Conditions:
  - Generator Recordkeeping: name and address of destination facility, documentation that the 180-day time limit is being met, how generators will meet the “no free liquids standard.”
- Reusable wipes must be sent to a laundry that is regulated under the Clean Water Act.
- Disposable wipes must be sent to one of the following:
  - A combustor regulated under Section 129 of the Clean Air Act, or a HW combustor or Boiler/Industrial Furnace; or
  - A MSW landfill regulated under 40 CFR 258 or a HW landfill.
- Conditions for exclusion continue to apply during transportation and at downstream handlers.



# Frequently Asked Questions about EPA's Final Rule



- Do the rules allow on-site laundering?
  - Answer: yes, provided any WW discharge is regulated under the Clean Water Act.
- Can I manage uniforms, mats, PPE, or mop heads under the rule?
  - Answer: no, these items do not meet the definition of wipes.
- Can generators self-transport wipes to a MSW LF or combustor under the EPA rule?
  - Answer: yes, provided they are labeled, closed, etc.
- Can I add absorbents to containers of wipes?
  - Answer: no, the exclusion is only for solvent-contaminated wipes.

# DEEP Response to EPA Final Rule

- Fall of 2015: DEEP approached by a group of stakeholders, encouraging us to adopt the rule as soon as possible.
- Early 2016: DEEP began drafting a regulation.
- 2/3/2017: DEEP released proposed regulation, and Public Comment Period began.
- 3/6/2017: Public Comment Period closed.
- 5 commenters: 4 expressed support, 2 made suggestions regarding the proposed regulation, none opposed it.
- 3/29/2017: DEEP Response to Comments.
- 6/27/2017: Approved by Legislative Regs Review Committee.
- 8/25/2017: Final Approved Regulation.



# Overview of the Final DEEP Regulation



- Adds new Section 22a-449(c)-101(d) to CT's Hazardous Waste Regs for solvent-contaminated wipes.
- Largely the same as the EPA Final Rule, although structured differently and with some more-stringent provisions and clarifications.
- Copy of the Final DEEP Regulation is available at:  
<https://eregulations.ct.gov/eRegsPortal/Search/RMRView/PR2016-045>

# Differences Between the DEEP and EPA Rules

- Launderable wipes excluded from the definition of *hazardous waste* (not *solid waste* as in the EPA rule).
- Containers of wipes (disposable and reusable):
  - Rigid (e.g., drums, but not cloth or plastic bags).
  - Non-leaking.
  - Marked with start date of accumulation.
  - Not have any other wastes placed in them.
- Clarified who is responsible for compliance with the conditions for exclusion.
- Disposable wipes may not be thrown in the trash.
- Clarified state requirements applicable to receiving facilities.



## Differences (Cont.)



- Receiving facilities must have the required permits and not have any unresolved enforcement actions regarding the management of solvent-contaminated wipes.
- Generators of wipes must maintain records regarding the amount of wipes they generate and launder or dispose of. Examples:
  - On-site log.
  - Shipping records/bills of lading.
  - DEEP also requires that records must be kept for at least 3 years.
- Clarified the status of free liquids and residuals from laundering:
  - Free liquids removed from wipes - regulated as hazardous waste.
  - Residuals from laundering - only hazardous if they exhibit a characteristic (i.e., solvent listings do not carry through).

# Solvent-Contaminated Wipes

## A Comparison between the Federal and State Rules

| Federal Rule                                                                                                                                                                                                                       | State Rule                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditional Exclusion from the definition of <u>hazardous waste</u> for disposable wipes.                                                                                                                                          | Same.                                                                                                                                                                                                                                                              |
| Conditional Exclusion from the definition of <u>solid waste</u> for reusable wipes.                                                                                                                                                | Conditional Exclusion from the definition of <u>hazardous waste</u> for reusable wipes (i.e., they are still a solid waste).                                                                                                                                       |
| New definitions: “No Free Liquids,” “Solvent Contaminated Wipe,” and “Wipe.”                                                                                                                                                       | Same.                                                                                                                                                                                                                                                              |
| Must be stored and transported in non-leaking, closed containers that are capable of containing free liquids.                                                                                                                      | Containers must also be rigid (e.g. a drum, but not plastic or cloth bags), and not have any other wastes placed in them.                                                                                                                                          |
| Containers must be closed except when adding or removing wipes                                                                                                                                                                     | Same.                                                                                                                                                                                                                                                              |
| Containers must be sealed when full and during transportation.                                                                                                                                                                     | Same.                                                                                                                                                                                                                                                              |
| Containers must be labeled “Excluded Solvent-Contaminated Wipes.”                                                                                                                                                                  | Containers must also be marked with the accumulation start date.                                                                                                                                                                                                   |
| 180-day accumulation time limit.                                                                                                                                                                                                   | Same.                                                                                                                                                                                                                                                              |
| No free liquids at the time of being sent for disposal or cleaning.                                                                                                                                                                | Same.                                                                                                                                                                                                                                                              |
| Free liquids may be removed and must be managed as hazardous waste.                                                                                                                                                                | Same. However, the Connecticut rule clarifies that residuals from laundering are only hazardous if they exhibit a characteristic (i.e., any listings from the wipes do not carry through).                                                                         |
| Generator Recordkeeping: name and address of destination facility, documentation that the 180-day time limit is being met, how generators will meet the “no free liquids standard.”                                                | Generators must also keep records of shipments (e.g., shipping logs, bills of lading, etc.). These records must be kept for at least three years.                                                                                                                  |
| Reusable wipes must be sent to a laundry that is regulated under the Clean Water Act.                                                                                                                                              | Laundry facility must also have the appropriate permits, and not have any unresolved enforcement actions taken by state or federal agencies regarding the management and disposal of solvent-contaminated wipes.                                                   |
| Disposable wipes must be sent to: (1) A combustor regulated under Section 129 of the Clean Air Act; or, (2) a HW combustor or Boiler/Industrial Furnace; or, (3) a MSW landfill regulated under 40 CFR 258; or, (4) a HW landfill. | Disposable wipes may not be thrown in the trash. Any receiving facility must have the appropriate permits, and not have any unresolved enforcement actions taken by state or federal agencies regarding the management and disposal of solvent-contaminated wipes. |
| Conditions for exclusion continue to apply during transportation and at downstream handlers.                                                                                                                                       | Connecticut rule clarifies that this is the case (not clear in the federal rules).                                                                                                                                                                                 |

# Practical Impact of DEEP's New Regulation.

- Launderable Wipes: No longer have to be managed as HW while on-site.
  - However, generators must comply with the conditions for the exclusion (labeling/recordkeeping/no free liquids, etc.) for wipes to be exempt.
  - Wipes must be sent to approved facilities (DEEP permit for WW discharge).
  - Consider managing wipes as HW until steps have been taken to ensure compliance with the conditions for the exclusion.
- Disposable Wipes: No longer have to be managed as HW.
  - However, generators must comply with the conditions for the exclusion (labeling/recordkeeping/no free liquids, etc.) for wipes to be exempt.
  - Wipes must be sent to approved facilities (e.g., RRF or out-of-state SWLF).
  - Consider managing wipes as HW until steps have been taken to ensure compliance with the conditions for the exclusion.



# Practical Impacts (Cont.)

- Some generators may reduce waste generation enough to lower their HW generator status (e.g. LQG to SQG or SQG to CESQG).
- If generators generate wipes that are eligible for the exclusion and others that are NOT eligible, they will have to separate them in order to manage the excluded wipes under the new rule.
- Generators may want to review their processes and find ways to eliminate sources of contamination that might make wipes ineligible for the exclusion.
  - Example: If their solvent wipes contain TCLP lead (ineligible), try to find a way to eliminate the source of the lead.



# Status of Other Types of Wipes



- Wipes contaminated with hazardous waste other than solvents.
- Wipes contaminated with used oil.
- Wipes contaminated with non-RCRA-hazardous waste (“Connecticut-Regulated Waste”).
- Wipes that may be managed at facilities that are authorized to accept certain types of non-RCRA-hazardous special waste.

# Wipes with HW Other than Solvents.



- EPA and DEEP rules only apply to wipes containing certain, specific solvents:
  - F001-F005 listed solvents and their U-listed counterparts, ignitable and TCLP solvents.
- Wipes that are hazardous for something other than one or more of these solvents are not exempt under the new rule, and must be managed as a fully-regulated hazardous waste.
  - Example: wipes that are hazardous only for TCLP lead.
- Wipes that contain these solvents and are hazardous for any other reason are not exempt under the new rule and must be managed as fully-regulated hazardous waste.
  - Example: wipes that are hazardous for one of the above solvents and TCLP lead.

# Wipes Contaminated with Used Oil



- Used oil regulations:
  - [40 CFR 279](#).
  - [RCSA Section 22a-449\(c\)-119](#).
- Apply to “[materials containing or otherwise contaminated with used oil](#),” unless there are no “visible signs of free-draining oil.”
- Solvent-contaminated wipes that are excluded under the new rule are also not subject to regulation as used oil.
- “No free liquids” key to preserving the exclusion.

# Wipes Contaminated with Non-RCRA-Hazardous Wastes (“CT-Regulated Wastes”)

- Connecticut-Regulated Wastes include:
  - CR01 - PCBs over 50 ppm.
  - CR02 - Waste Oil.
  - CR03 - Waste Water-Soluble Oil.
  - CR04 - Waste Chemical Liquids.
  - CR05 - Waste Chemical Solids.
- Wipes contaminated with these wastes are themselves regulated as Connecticut-Regulated Wastes.
- Except for CR05, must be transported by permitted transporters.
- Can only be accepted at permitted facilities (in CT).
- Many may be managed as special waste at approved facilities.



# Wipes that May be Managed as Special Waste

- Certain wipes may be sent to a solid waste facility as a “special waste.”
- Facility must be authorized to accept special waste.
- 4 Resource Recovery Facilities in CT are authorized to accept special waste: Bridgeport, Bristol, Lisbon, Preston.
- These facilities have approved Special Waste Plans that allow them to take certain categories of waste that could include wipes:
  - Paint/Plastics/Rubber Wastes.
  - Oil/Petroleum Product Contaminated Wastes and Debris.
  - Industrial Wastes.
  - Printing Wastes.



# Special Waste (cont.)

- Special Waste Plans require pre-approval by the receiving facility.
  - Facility is also limited on how much special waste they can burn per day, and must report the amounts of special waste accepted.
  - Facilities charge a different tipping fee for special waste.
  - Also, new DEEP rule requires rigid, non-leaking containers, and does not allow mixing with other solid waste.
- As a result, disposal of wipes to regular trash prior to disposal at an RRF is not an option.
- Another option: send to a permitted HW/CRW facility for aggregation and burning at an RRF.



# How Will All this Affect RCRA Inspections and Enforcement?



- Practically speaking, not a hard switch from old to new requirements - transitional.
- Need to make regulated community aware.
- DEEP staff need to be brought up to speed.
- Need to revise inspection checklists to reflect new requirements.
- However, generators of wipes should comply with the new rules ASAP to avoid possible violations.
- Consider managing their wipes as HW until steps have been taken to ensure compliance with the conditions for the exclusion.

# Questions?



Ross Bunnell, Senior Sanitary Engineer  
DEEP Waste Engineering & Enforcement Division  
79 Elm Street  
Hartford, CT 06106-5127

Phone: (860) 424-3274

Email: [ross.bunnell@ct.gov](mailto:ross.bunnell@ct.gov)