



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Solid Waste Handling Standards Rule

CHAPTER 173-350 WAC



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# Determination of Solid Waste - New Section

# Solid Waste under the old rule

- ▶ Relied primarily on two definitions:

"Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

"Recycling" means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling does not include collection, compacting, repackaging and sorting for the purpose of transport.

# The Determination of Solid Waste - a new tool -



- ▶ Creates a framework for consistent decision-making
- ▶ Clarifies when a material qualifies as solid waste
- ▶ Can be used by generators, facility operators and health departments

How do you use the new tool?



The DSW tool is meant to be used in the framework of the rule as a whole, not in isolation.

# Use the whole rule

Does the material fall out of the rule under applicability?

Is the material one of the three listed in -021 (1)a-c?

Did the material ever become a waste under subsection (2)?

If it was a waste, is it no longer a waste under subsection (3)?

\*Any materials that are recycled or salvaged can become a solid waste again if discarded or otherwise handed in a way that fails the criteria in (2) or (3).\*

# A material is a waste if...

- (a) Discarded, abandoned, or disposed of;
- (b) Permanently placed in or on land for disposal;
- (c) Collected through residential or commercial waste or recycling collection;
- (d) Received at a solid waste handling facility for recycling, incineration, disposal, or beneficial use;
- (e) The generator paid for removal or processing for recycling, incineration, disposal, or beneficial use a; or
- (f) The material has been stockpiled for recycling, but no market is available and stockpiles create environmental impact.

# A material is no longer a solid waste if...

- (a) No longer discarded or abandoned;
- (b) Separated from solid wastes;
- (c) Recycled, or ready (salvaged) for reuse;
- (d) Has positive market value:
- (e) Stored and managed to preserve its value, and so it presents little or no risk to human health and the environment; and
- (f) Does not contain harmful substances that will pose a threat for its intended or likely use.



# Anticipated impacts

- ▶ Application of what is regulated as solid waste will be more consistent
- ▶ Many material recovery facilities will produce one or more commodities
- ▶ Most material recovery facilities will still take in solid waste, and will still produce some not-yet-recycled wastes
- ▶ Some previously regulated facilities will no longer be handling solid waste
- ▶ We will have an additional tool to identify sham recycling and discourage speculative





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# Recycling & Material Recovery Facilities

# Under the old rule

## Recycling

- ▶ Under its own section
- ▶ Permits could be required, but no standards for permitted facilities

## Material recovery

- ▶ Combined with transfer stations and drop boxes
- ▶ Assumed most facilities would be taking a three-bin or similar system, not single stream

# What changed under the new rule?

- ▶ Combined and aligned both standards under one section – WAC 173-350-210
- ▶ Reduced the residual contamination limit for exempt facilities to 5% overall
- ▶ Changed exemption criteria to require most commingled facilities to have a permit



# Why the change?



- ▶ Confusion over which standard applied
- ▶ Sometimes both standards applied
- ▶ More material recovery facilities will also be recycling now

# Anticipated impacts

- ▶ Regulated facilities will be clearer about what standards to use
- ▶ Most facilities that were exempt before will remain exempt
- ▶ Some currently exempt facilities will fall out of regulatory oversight
- ▶ Some facilities handling comingled will either have to change their operation or get a permit, but most are already permitted
- ▶ Some facilities that meet exemption criteria under 210 may also be storing outdoors in piles and would trigger permitting under those standards



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# Piles for Storage and Treatment

# Solid Waste In Outdoor Piles



Applicability:

Permanent (on-going) piles sites require permitting.





Does not apply to...

- Land applied piles
- Anaerobic digesters
- Composting
- Piles stored indoors (outside piles at other SW facilities must meet piles standards)



# New Exemptions

- Temporary piles of contaminated soil/dredged materials – if removed in 90 days or with a construction stormwater general permit
- Non-ferrous metals
- Brick, cured concrete, and asphaltic materials with sand and gravel or construction stormwater water quality permit



Wood waste and wood derived fuel

Remove at least 50%  
All waste at start of calendar year  
+  
All waste accepted during calendar year



Non-ferrous metals



# Asphalt Roofing Shingles

- No exemption under piles
- Possible exemption under Table 210-A(3)



## Other changes:

- Structure of piles section
- Sealed surface permitting requirements



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# Surface Impoundments, Limited Purpose Landfills, Inert Waste Landfills, Groundwater Monitoring

# Section 330: Surface Impoundments and Tanks



# Section 330: Applicability

- ▶ Principal application is to systems for handling leachate at landfills, but...
  - ▶ Other sections of Solid Waste Handling Standards, as well as WAC 173-308 - Biosolids Management, also rely on Section 330 for design, construction, and operating criteria.
  - ▶ Clarifies that some or all of Section 330 requirements are relevant in those cases.
- ▶ Expands scope to include piping systems which connect to surface impoundments or tanks.



# Section 330: Updated Permitting Criteria

- ▶ Periodic leak testing.
- ▶ Periodic maintenance and cleaning.
- ▶ Leakage criterion to trigger repairs and assessments.
- ▶ Controls on public access.
- ▶ Document how facilities are designed and constructed.
- ▶ Plans of operations.
- ▶ Location in relation to existing water wells.
- ▶ Notification to nearby property owners.
- ▶ Permits for other solid waste handling activities which include surface impoundment and tanks must address these requirements.

# Section 400: Limited Purpose Landfills



## Section 400: Reorganized Design Standards

- ▶ Demonstrate that a proposed design meets the relevant performance standards.
- ▶ Several options available to limited purpose landfill operators for liner and final cover designs.

## Section 400: Facility Monitoring

- ▶ Expands description of what monitoring data needs to be collected at limited purpose landfills, and how it should be reported.
- ▶ New language largely reflects current practices by most limited purpose landfill operators.
- ▶ Establishes a consistent basis for producing data to guide the management of facilities throughout the state.

# Section 400: Closure and Post-Closure

- ▶ Mirrors approaches adopted in 2012 for the Criteria for Municipal Solid Waste Landfills, WAC 173-351.
- ▶ Redefines endpoints for post-closure to focus on functional stability of the landfill.
- ▶ Eliminates use of subjective stability criteria.
- ▶ Eliminates arbitrary timeframe for financial assurance planning.
- ▶ Use environmental covenants to provide continued protection for human health and the environment after post-closure.

## Section 400: Updated Permitting Criteria

- ▶ Document how facilities are designed and constructed.
- ▶ Plans of operations.
- ▶ Location in relation to existing water wells.
- ▶ Notification to nearby property owners.

# Section 410: Inert Waste Landfills



## Section 410: Updated Permitting Criteria

- ▶ Controls on public access.
- ▶ Document how facilities are designed and constructed.
- ▶ Plans of operations.
- ▶ Location in relation to existing water wells.
- ▶ Notification to nearby property owners.



# Section 500: Groundwater Monitoring



## Section 500: Updated Requirements

- ▶ Data submittals to Ecology's Environmental Information Management system
- ▶ Expands monitoring to include both total and dissolved sampling for iron, magnesium, and manganese



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# Contaminated Soil and Dredged Material



## Old Rule

Clear on only contaminated soil from cleanup sites and dangerous waste facilities



Contaminated  
Dredged  
Materials

Tied to  
standards for  
open water  
disposal

May not be  
safe for upland  
locations

# Revised Rule



Changes to definitions – clean/contaminated

All soils and dredged materials impacted by  
release of contaminant,  
moved from one location to another,  
onto the ground



Must meet state cleanup and pH standards for the location where materials are going on the ground

If can't find such a location, must manage as solid waste at a facility permitted to manage such materials

Can always choose to manage at a solid waste facility - no mandate to find placement on the ground.



# Rule does not apply to...

- Clean soil/dredged material
- Dangerous waste
- Management within cleanup site
- Dredged material back into/adjacent to water
- Reuse of engineered soil at different place for same engineering properties
- Contaminated soil that is picked up from the ground, not altered, and placed back near its origin



# What does it really mean?

MTCAs sets cleanup levels using several methods –  
Method A, B, C, unrestricted land use, industrial, cancer, non-cancer, ecological considerations

MTCAs Method A Unrestricted levels are safe in most places  
Human health and groundwater protection, 30 parameters

pH is primarily to address problems with soil amended with cementitious materials, such as jet grout. Natural background pH is not a release of contaminant.

Most soils moved are considered clean:

Soils excavated from undeveloped or residential areas not otherwise exposed to industrial impacts



Similar soils excavated from areas that have been protected under impervious surfaces

Deciding whether need to characterize based on suspected releases remains up to the judgement of soil handlers and concerned agencies – rule does not require testing outright, but provides standard for placement if contaminants exist

Ecology will create guidance

Common materials subject to question, like street waste, engineered soils, will include:

- Test parameters

- Contaminant limits

- Address common uses

- When ecological considerations might come into play

Will update:

- Eastern and Western Stormwater Manuals that address BMPs for street waste

- Petroleum contaminated sites guidance

When questions come up:

Consult Health Agency or Ecology Solid Waste Management Program staff as needed (not Toxics Cleanup Program)



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# Other Changes

## Moderate Risk Waste Handling

- ▶ Separate definitions for mobile system and collection events
  - Collection event can be one-time or recurring location, 48-hour storage limit
- ▶ Clarified that protecting MRW from wind/precipitation can be via either design or operational means
- ▶ Added clarity that only floors serving as secondary containment be sealed
- ▶ Trained staff on-site



## Waste Tires

- ▶ Separated pile storage and waste tire transportation into two sections
- ▶ Waste tires stored indoors and inside containers not used for transportation are now regulated
- ▶ Pile design standards updated to reflect criteria in the 2015 international fire code
- ▶ Regulatory threshold remains 8 tons (800 normal size tires). Added larger threshold of 20 tons where tires weigh 500+ pounds each.



- ❑ Operations plan elements consolidated from two sections into one under each facility type
- ❑ Where design standards exist, limited what requires engineering docs to only engineered features (e.g. not litter or vector control)
- ❑ All conditionally-exempt activities now clearly shown in tables
- ❑ No substantive changes to composting, anaerobic digestion, or other organic material handling – revised in 2013



## ❑ Changes to exclusions from rule in applicability section:

- Expanded rule exclusion for agronomic application of manure and crop residue to include on-farm vegetative waste, also changed manure def to include wash water

### Added exclusions for:

- Use of organic material as animal feed or to make animal feed, and for routine livestock mortality management
- Reuse activities – second hand stores, auto recyclers selling parts
- Limited research and development activities
- Steel slag from electric-arc steelmaking
- Drug take-back programs



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# Effective Dates & Implementation

## Effective dates for meeting standards

- ▶ New solid waste units, standards apply right away
- ▶ Existing units
  - New operating, monitoring, closure and post-closure planning, and financial assurance standards within 18 months of August 1, 2018
  - Changes to design with 24 months of August 1, 2018
- ▶ Eligible for conditional permit exemption - meet any new conditions within 12 months
- ▶ Previously unregulated now in need of permit (piles, commingled MRFs/Recyclers), submit complete permit application within 12 months

Facilities unable to meet new standards will need to close, or obtain variances if an option

## Implementation

- ▶ 4 regional workshops for Jurisdictional Health Agencies in October
- ▶ 1 webinar for facilities and other interested parties in October/November
- ▶ Regional Ecology facilities staff will meet with jurisdictions and facilities as needed on specific needs for affected facilities within each county

### Updating forms, work in progress:

- Permit Application
- Permit Template
- Permit Deferral
- Notifications of Conditional Exemption
- Annual Reports

A row of blue recycling bins, viewed from a low angle, receding into the distance. The bins are lined up, and the word "Questions?" is overlaid in white text in the center of the image. The lighting is bright, creating highlights on the plastic surfaces.

Questions?