



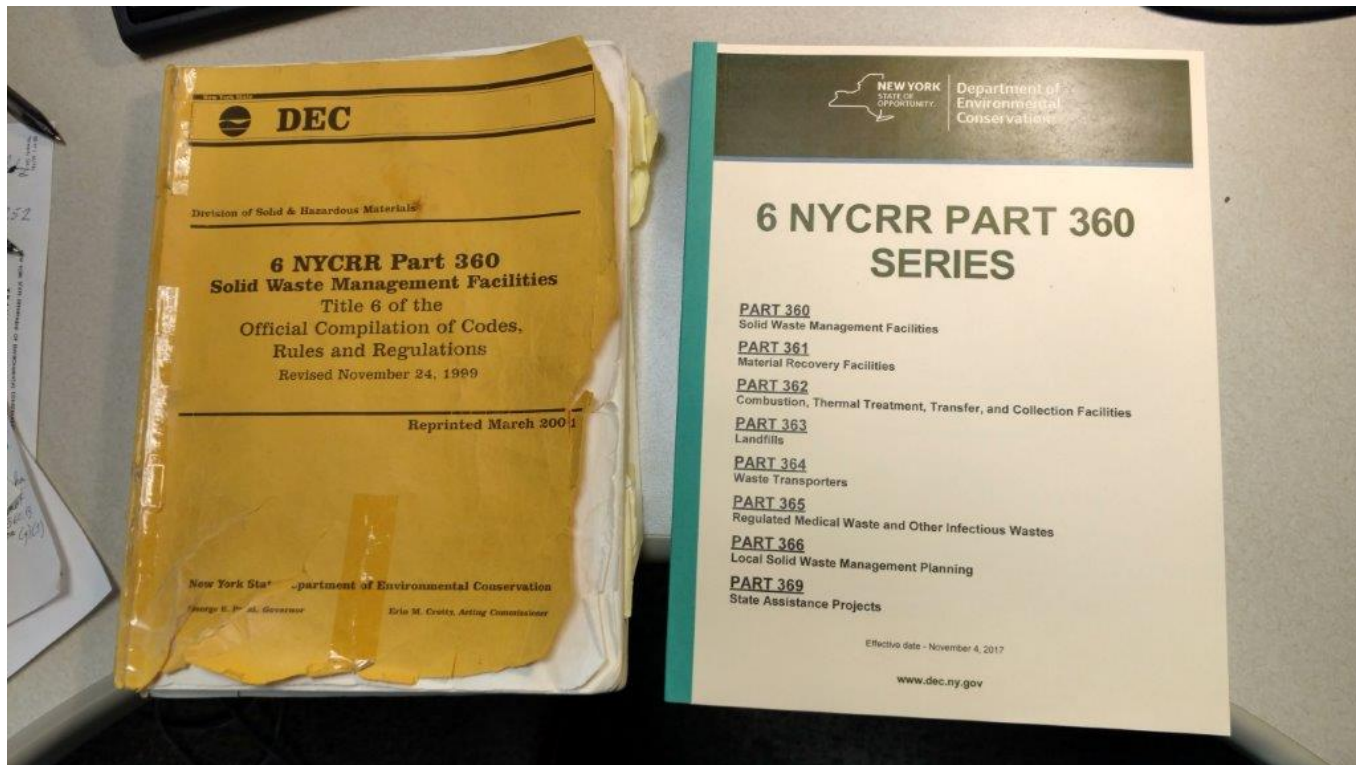
Department of
Environmental
Conservation

Waste Tires and the New Part 360 Series

Federation of New York Solid Waste Associations Conference
May 21, 2019

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“New” Solid Waste Regulations: Effective November 4, 2017



Outline

- **New regulations** for tires
 - Beneficial use
 - Fuel use
 - Landfill use
 - Tire facilities
- **Enforcement Discretion** and possible rule changes
- A few **projects approved** by DEC

Part 360 General Requirements

- Section 360.2 Definitions
- Section 360.4 Transition
- Section 360.12 Beneficial Use

Section 360.2

Definitions

Many New or Revised Definitions

Waste Tire

Waste Tire Handling and
Recovery Facility

Passenger Tire Equivalent
(PTE)

Crumb Rubber

Alternative Fuel

Combustion Facility

Thermal Treatment

Transporter

Transport Vehicle

Transfer Facility

Storage

Operating cover (landfill)



Definition: Crumb Rubber

360.2(a)(3)(viii) and ECL § 27-1901: Crumb rubber is **excluded** from the definition of waste tires and solid waste.

360.2(b)(67): What constitutes crumb rubber?

Crumb Rubber means rubber granules that are produced from waste tires and that are

- less than or equal to, one-quarter inch or six millimeters in size, and
- 99.9 percent free of wire and fiber.



Section 360.4

Transition

Part 360 Transition Requirements

- All **BUD** requirements in the new Part 360 have gone into effect as of May 3, 2018*
- All **Facility** requirements in the new Parts 360, 361, 362, and 363 related to waste tires are now in effect.**
- All **Transporter** requirements in the new Part 364 are now in effect.

*Except where subject to **Enforcement Discretion**

****Permits** issued prior to November 4, 2017 continue under old regulations and permit conditions, until they expire, are renewed, or modified.

Section 360.12

Beneficial Use

360.12 – Beneficial Use

Subdivisions:

- (a) Applicability
- (b) Unacceptable Uses
- (c) Pre-determined Beneficial Uses
- (d) Case-specific beneficial use determinations – general

360.12(a) - Applicability

Beneficial
Use



Waste as
effective
substitute for
commercial
product or
raw material

360.12(a) – Applicability

- 360.12 Beneficial Use does not apply to:
 - Materials being sent to **Part 361 facilities**
 - Waste used in a **manner that constitutes disposal**
- Default **storage time limit of 365 days**

360.12(a) – Applicability: What isn't included



360.12(b) – Unacceptable Uses

- The encasement of waste tires in concrete
- The use of waste tires as fences or screening.

Part 360.12: Two kinds of BUDs...

- Pre-determined BUDs

- Established in regulation
- No additional approval from DEC
- Note conditions and when material ceases to be waste
- **Report to DEC if >10,000 tons distributed**

- Case-specific BUDs

- Decision based on petition submitted to DEC
- Not transferable without DEC approval

360.12(c) – Pre-Determined Beneficial Uses for Waste Tires

- Waste tires used to **weight tarps** over agricultural bunker silos, salt piles, etc.,
 - Up to 0.25 PTE per square foot of tarp can be kept on site, whether or not in use.
 - Tires must be cut in half or drilled/punched to drain standing water.
- Up to **150 whole tires** or PTEs at a single site for landscaping, playgrounds, or manufacturing



360.12(c) – Pre-Determined Beneficial Uses for Waste Tires

- Tire-derived aggregate (TDA):
 - **Residential septic leach fields** meeting TDA specifications in NYSDOH regulation (10 NYCRR App. 75-A)
 - **Mulch** (wire-free particles less than one inch)
 - **Playground and athletic field surfacing** (wire free and less than 3/8 inch)



360.12(d) – Case-Specific Beneficial Use Determinations - General

- Case-by-case review for any byproduct or waste material, including waste tires
- Review criteria (“essential nature is use not disposal,” “managed as a commodity,” **“will not adversely affect health and the environment,”** etc.)
- All case-specific BUDs expire no more than 5 years from effective date
- Annual reporting for all case-specific BUDs
- Right to hearing for revocation



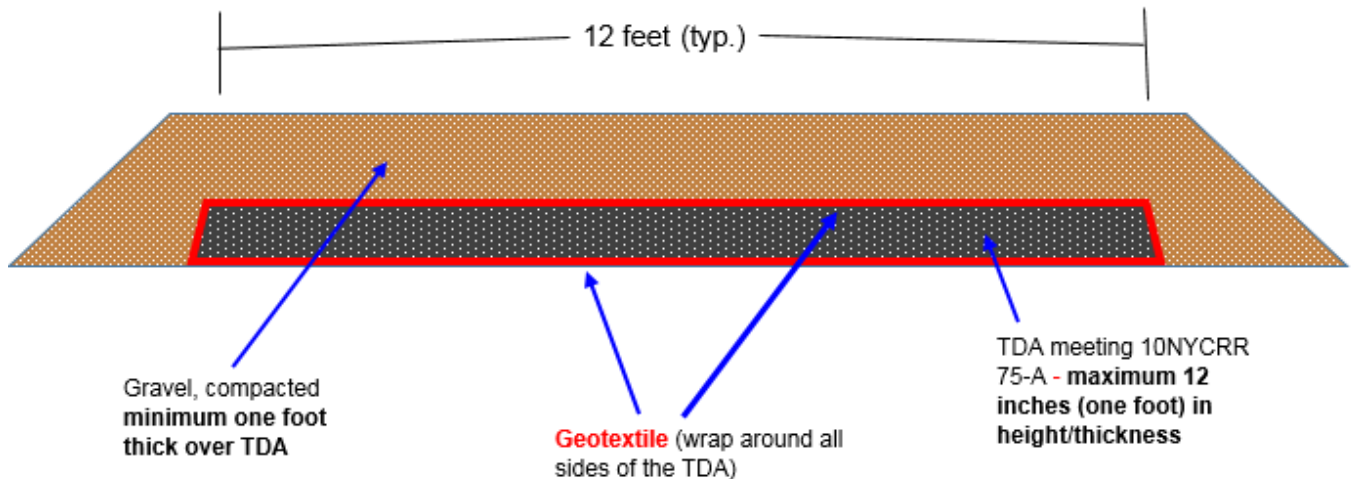
360.12(d) – Case Specific BUDs for Tires: Examples

- **Earth-filled whole tires** in construction
- Non-DOH-spec TDA (ASTM or other specification) for general sale as drainage and non-load-bearing fill (from tire recovery facilities)
- Several BUDs granted to public entities for **TDA from tire abatement projects**, including NYSDOT, NYSDEC, and NYS Office of General Services
- Site-specific TDA road or drainage projects
- Tire bales used by counties in highway subgrades
- **Safety barriers** at racetracks (designed by professional engineer)



Case-specific BUD use of Tire Chips

Figure: Cross-section of driveway or access road using tire-derived aggregate (TDA) – not to scale



Denied BUD Petitions

- **Baled tires** for home/ building construction
 - Petitioner receiving tire fee
 - Petitioner proposing far greater quantities than justified
 - Baling activity not covered by a BUD (facility permit needed)
- **Safety Barrier** without PE design

Part 361 Material Recovery Facilities

361-6 – Waste Tire Handling & Recovery Facility – Exempt & Registered Facilities

Exempt Facilities

- **Facilities that store less than 1,000 tires at any one time**
- Registered vehicle dismantling facilities that store less than 1,000 tires at any one time [tires mounted on vehicles or that are used to support vehicle (max 6) are not included in total]

Registered Facilities

- Facilities that store waste tires in **enclosed trailers** (max 6) (with conditions)
- Facilities selling waste tires (with conditions)
- Facilities with a valid **USDOT retreader** registration (with conditions)



361-6 – Waste Tire Handling & Recovery Facilities

Operating Conditions (both registered and permitted):

- Storage: whole tires < 30-day production capacity and processed tires < 90-day production capacity
- Tire-related waste removed within 7 days
- Storage pile: < 20 feet in height, < 40 feet width, surface area < 5000 square feet
- 10-foot separation between storage piles unless separated by bins or other structures. Storage piles must not extend over property boundaries
- Fire Prevention Requirements
- Financial Assurance



Subpart 362-1 Combustion and Thermal Treatment Facilities

362-1 – Combustion Facilities and Thermal Treatment Facilities

Registered Facilities:

- Facility that combusts/thermally treats waste tires, where:
 - Feedrate < 10 tons per day
 - Enclosed building
 - Fire suppression
 - Financial assurance

362-1 – Combustion Facilities and Thermal Treatment Facilities

The combustion itself of tire-derived fuel (chips) or whole tires is exempt, provided the TDF is designated an alternative fuel pursuant to DEC Air Resources regulations (Parts 212 or 227) and the facility Air permit.

Combustion Facility: ReEnergy Black River (Jefferson County, NY) - 2014

Main fuel is wood; TDF is alternative fuel.



Part 363 Landfills

Section 363-6.21 Equivalent Design

Tire chips or shreds:

- Operating (formerly “daily”) cover
- Gas vent layers in the waste mass
- Lightweight subbase for haul roads

Part 364

Waste Transporters

Part 364 Waste Transporters – Waste Tires

- 364-1.2(f) Applicability – Waste Tires specified.
- 364-2.1 Exempt Transport
 - Rail, water and air carriers
 - Quantities under 2000 pounds in one shipment (roughly 90 passenger tires or 60 truck tires)
- Permit in other circumstances – see <https://www.dec.ny.gov/chemical/8483.html>

Enforcement Discretion for Waste Tire Regulations

January 25, 2019 Enforcement Discretion Letter from Tom Berkman, General Counsel

Until May 3, 2020, or the Part 360 regulations are revised, the Department will exercise its enforcement discretion:

- Concerning Subpart 361-6, to allow storage and use of waste tires to secure tarps pursuant to *either* pre-determined BUD 360.12(c)(2)(iv) *or* to BUD 1137-0-00, a case-specific BUD from 2014 that allows farm use of tires to weight plastic or tarps over bunker silos. More information at <https://www.dec.ny.gov/regulations/81768.html>
- **This EDL provides relief from the requirement to cut tires or punch holes** prior to use on tarps. Numbers of tires kept on the farm must still be reasonable for this use.



Tires used to weight bunker silo tarps

Actual typical use on NY farms, vs...



360.12(c)(2)(iv)-compliant weights



Part 360 Series Proposed Rulemaking

DEC will propose adjustments to certain Part 360 Series regulations to correct errors, and to address concerns that have manifested as the rules have gone into effect.

This will be a formal rulemaking, including public comment periods and opportunities for stakeholder engagement. Your feedback on the proposed rule changes will be important.

Subscribe to ***DEC Delivers*** “Solid Waste and Recycling Newsletter” - <https://www.dec.ny.gov/public/65855.html>



Case Studies

Waste Tire Beneficial Use

Town of Russell (St. Lawrence County, NY)

- Highway Retaining Wall - Completed April 2012 using approximately 1100 soil-packed tires.
- Soil stabilized using layers of geotextile between compacted lifts.
- Vertical drainage layer behind the tire wall.



Rath Property (Otsego County) - 2015

Approximately 2000 earth-filled tires used in numerous gravity retaining walls on a steeply-sloped property



Rath Property (Otsego County) - 2011



Storage of up to 150 tires before use allowed, if covered, as a condition of the BUD.



“Exempt-disposal RU-CARBS” and “DOT-spec Item 4” structural fill were used behind walls.

Cronk Residence (Jefferson County, NY)

Approximately 1400 earth-filled tires to construct a 4000-sq. ft. single-family home. A January 2012 case-specific BUD granted for this project.

See Facebook page
<https://www.facebook.com/pages/category/Personal-Blog/Cronk-Earthship-162709063823518/>



Photo credit: Anthony Cronk

Cronk Residence (Jefferson County, NY)



Photo credit: Anthony Cronk

How NOT to use earth-filled tires...

Site in rural upstate NY.

- Estimated 3000-5000 tires.
- No design or plan submitted to DEC.

Referred for cleanup under NYS Tire Abatement program.



Thank You

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