Improving Composting Regulations for Surface Water Management

Ángel Arroyo-Rodríguez, AICP, RS
Partners Conference
Columbus, OH
June 5, 2017
Today’s Discussion

• Types of surface waters to manage
• Examples of good practices
• Proposed composting rules
Surface Water Categories

- Non-process storm water
- Process storm water
- Leachate
- Wash water

Wastewaters
According to Current Definitions

- Non-process storm water
- Process storm water
- Leachate
- Wash water

Runoff

Liquid industrial waste
Management Challenges

• Keeping storm water separate
• Wastewater collection, disposal/treatment
• Planning for expected and unexpected
Food Scraps Composting Layout

- Biofilter
- Receiving area
- Slope
- Leachate Treatment
- Roadway
Proposed Composting Rules

• Aim to be proactive
• Emphasize initial facility design
• Anticipate needs
• Plan for the long term
Definitions

• "Runoff" means precipitation that has fallen onto the composting facility and storm water as defined in Rule 3745-39-01 of the Administrative Code that has not come in contact with any compost products, solid wastes, feedstocks, bulking agents, or additives.
  – "Storm water" means storm water runoff, snow melt runoff and surface runoff and drainage. (OAC 3745-39-01)

• "Run-on" means precipitation that has fallen upslope of the materials placement area of a composting facility and flows onto the composting facility.

• “Leachate” means liquid that has come in contact with or been released from solid waste

• "Liquid industrial waste" is inferred to mean “… liquid waste resulting from any process of industry, manufacture, trade, or business or development of any natural resource…”
Design & Construction

3745-560-X02  **Construction and commencement** of operations at class X composting facilities.

(A) Facility **design and construction.** The composting facility shall be designed and constructed to meet the following:

(1) The land surface of the materials placement area shall **have a slope** greater than or equal to one per cent and less than or equal to six per cent so as to direct surface water to collection points or otherwise control the surface water drainage.

(2) **Prevent run-on from reaching the materials placement area.**

(3) **Prevent ponding and erosion.**

(4) **Minimize the potential impact to surface water and ground water.**

(5) **Collect and contain leachate within the boundary of the composting facility and prevent leachate from discharging to waters of the state, unless the discharge is authorized pursuant to Chapter 6111. of the Revised Code.**

(6) **Construction of the materials placement area to allow facility operation during inclement weather.**

(7) **Construction of roads within the facility boundary to allow for passage of vehicles at all times.**

(4) **Construction of any planned leachate and surface water management structures.**

(5) **Signs are posted in accordance with rule 3745-560-X10 of the Administrative Code.**
Leachate Management Options

- Re-circulated back onto the composting piles
- Directed to sanitary sewer
- Approved land application
- Treating leachate on-site and discharging
Thanks!

Ángel Arroyo-Rodríguez, RS, AICP
Program Leader
Composting | Organics Recycling | Infectious Waste
Division of Materials and Waste Management
Ohio EPA
angel.arroyo-rodriguez@epa.ohio.gov
614-728-5336