

Food Processing Residuals: Community and Environmental Impact

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Objectives:

- ▶ We'll provide an overview of what FPRs are
- ▶ We'll review the Best Management Practices as outlined in DEP's FPR Manual
- ▶ We'll explain how East Coventry Township has provided an example for other municipalities and the state to follow
- ▶ We'll highlight areas of consensus –steps we can all agree on to build trust while keeping our communities and farms safe

Our Local Story: East Coventry Township

- ▶ In our township we had an unexpected experience with FPR. The more we researched, the more we found that the DEP FPR Manual was not being followed.
- ▶ The Township organized a Steering Committee to research the manual and ensure that the regulations outlined in the DEP FPR Manual would be followed. A local FPR Ordinance was enacted.
- ▶ We feel the Steering Committee did an excellent job in helping revise our local FPR Ordinance and we feel the recommendations should provide an example for others in PA to follow.

What are Food Processing Residuals (FPRs)?

- ▶ According to the PA DEP FPR Manual, FPRs are incidental organic (from living matter) material generated by processing agricultural commodities for human or animal consumption
- ▶ Examples include: process wastewater from cleaning slaughter areas, rinsing carcasses, or conveying food materials; process wastewater treatment sludges; blood; bone; fruit and vegetable peels; seeds; shells; pits; cheese whey; off-specification food products; hides; hair and feathers

To qualify as a Normal Farming Operation BMP's must be followed

The FPR Manual page 103 states “The following is a summary of operating requirements that must be met in the residual waste regulations *in order to qualify for the permit exemption as a normal farming operation*. These requirements can be met by following the best management practices for land application identified in this chapter”



It's NOT "Normal Farming Practice" if all BPMs are not followed



The DEP FPR Manual stated that for FPR application to be considered a normal farming practice, the material must be **NON-HAZARDOUS** and **ALL guidelines** must be followed



If **ALL** guidelines aren't followed, the FPR application is **NOT** a normal farming practice

Required Best Management Practices: Nuisance Prevention



- ▶ Land application is to be conducted in a manner to prevent odors, vectors, ponding of liquids, public nuisances or adverse effects to the soil, ground water, food chain, or the environment. The Land Application System Plan is to include detailed description of considerations and actions taken to avoid these public nuisances.

Required Best Management Practice Metal Loading Rates

- ▶ The lifetime metal loading rates cannot exceed the limits identified in Table 8.2 of the FPR Manual. The annual loading rate should be applied in accordance with the nutrient management plan for the site and cannot exceed the nitrogen requirements of the crop. The nutrient management plan must provide the detailed information and show compliance.

Required Best Management Practice: Isolation Distances

- ▶ The land application cannot be conducted with the isolation distances identified in Table 8.11 of the FPR Manual except as otherwise noted in the table footnotes. All setback requirements listed in section 10-602 of Ordinance 2023-259 must be clearly indicated and dimensioned on USGS Maps with a scale not to exceed 1"=200'

Isolation Distances in East Coventry

- ▶ As residents researched table 8.11 in the FPR Manual, they became alarmed that the isolation distances weren't being followed
- ▶ This table states that application must be a certain distance from property lines, occupied buildings, neighboring wells and be a certain distance upgradient from a surface water source.
- ▶ **Neighbors were concerned about the impact this would have on their drinking water**

Required Best Management Practice: General Site Criteria

- ▶ The land application area must comply with the general site criteria for agricultural utilization identified in Table 8.10 of the FPR manual and section 10-603 of the township's Ordinance 2023-259. The Ag Erosion and Sediment Control Plan must show compliance with these requirements.



Required Best Management Practices: Stabilization

- ▶ Prior to the land application the FPR must be stabilized or treated in accordance with the PSRPs and PFRPs described under the section on Pathogens in the FPR manual, except as otherwise noted elsewhere in this chapter. The Land Application System Plan must include data to show compliance with these requirements.



Required Best Management Practice: Conservation Plans

- ▶ A farm conservation plan (Erosion, and Sediment Control Plan), prepared in accordance with Chapter 102, is required to be implemented on areas receiving FPRs. This plan is to be submitted to the Township for review prior to any application of FPR.

Required Best Management Practice: Storage

- ▶ Prior to land application, the FPR must be stored in accordance with Chapter 299 of the Residual Waste Regulations

Required Best Management Practice: Storage


- ▶ PA 25 Ch 299 regulations state that FPR storage containers must have a lid and be watertight. However, common practice is to ignore this regulation and use open pits without lids for storage.
- ▶ If there is no lid to the FPR storage pit, can it truly be considered a normal farming practice?
- ▶ Enforcing the need for a lid would go a long way to allay citizens' concerns regarding odors and safety.





Required Best Management Practice: Water Supply Protection

- ▶ If the land application operation adversely affects a water supply, a temporary water supply must be provided within 48 hours and a permanent water supply must be provided within 90 days.
- ▶ The Township should require financial security from the owner to cover the cost of providing water supply to impacted residents if their wells are impacted or the cost to rectify any other adverse impacts to the township or its residents that may occur.
- ▶ The solicitor should determine the amount of security required and if it is additionally insured or a separate bond be obtained for each of the two categories discussed below:
 1. Adjacent properties for temporary and permanent water supply for the residents affected.
 2. The Township and its residents for cleanup of spills anywhere in the township. The cleanup should include temporary and permanent water supply, if required.



To our knowledge these regulations are being ignored in places like Antrim, Cumberland County, and elsewhere.

We believe if these regulations were enforced across PA, it would address many of the public concerns on FPR use. DEP can build trust with communities by enforcing these regulations.

Required Best Management Practice: **FPR** **Characterization**

- ▶ A chemical and physical characterization of the FPR must be conducted prior to land application, as described in Chapter 4 of the FPR Manual and as required by Section 10-605.3 of the Township Ordinance 2023-259. A table of the results of the nutrient analysis is to be included in the Land Application System Plan.

Required Best Management Practice:

- ▶ FPRs that have the potential to be ingested by humans or animals **should not be applied** in areas where root vegetables which are eaten raw will be grown **within two years** of the land application. The Land Application System Plan must show compliance with this requirement.





Regardless of whether you are an FPR applier or someone living near where FPR is being applied-the specific make up and characteristics of the FPR is something that all are concerned about.


Appliers want to know what exactly they are applying.

Neighbors want to know exactly what is being applied

There is a general agreement that there needs to be a manifest to document the chain of custody that states and explains who, what, where, and what the composition is. Any change should always be documented in the manifest.

Required
Best
Management
Practice:
**Field
Marking**

- ▶ If the application area is not easily visible the area must be marked prior to land application operations



When things get applied without indicating where it occurred, people get justifiably nervous. Neighbors really want field markings.

Transparency builds trust.

Daily Records and Testing

- ▶ Daily Records must be maintained that include each of the following:
- ▶ Type, percent of solids, and weight or volume of FPR that is applied
- ▶ Name, mailing address, county and state of each generator
- ▶ Transporters of the FPRs, including detailed logs that document the chain of custody of FPR from the original generator to the final application on the field
- ▶ USGS maps for all areas of application
- ▶ The application rate of the FPRs
- ▶ PH Requirements
- ▶ The Ph of the site must be maintained in the optimum range for the crop being grown during the application of the FPR
- ▶ An annual report as detailed in the FPR Manual Chapter 8 pages 98-101 titled Recordkeeping should be presented to the Township manager each year. Township will review the annual report and conduct soil testing per section 10-605.4

Potential Threats of Unregulated FPR Application

- ▶ The need for careful regulation is well established. Use of unregulated waste, particularly waste from slaughterhouses can produce odors beyond the typical farming smells. Beyond odors, unregulated waste can result in:
 - ▶ Vectors- organisms that can spread pathogens such as viruses, bacteria or fungi to plants
 - ▶ Avian influenza (bird flu)
 - ▶ Prions (more rare)
 - ▶ Other areas restrict FPR to non-animal sources
 - ▶ Materials are trucked in from other states where FPR is more highly regulated



Where do we go from here?

- Transparency builds trust!
- We believe the Steering Committee's recommendations as outlined in East Coventry Township Ordinance Number 2023-259 are a model that should be followed by all of PA
- We believe that PA HB2393 is a badly needed step in the right direction
- We need to protect Pennsylvania from being the dumping ground for other states' waste



Points that All Parties Can Agree On

- The need for updating the FPR Manual
- The need for a written manifest that identifies and tracks where materials have come from and if any additional materials have been added along the way. This provides a chain of custody to ensure that everything is documented.
- Testing of FPR to ensure that material remains safe
- The need to provide education and training to haulers
- The need to provide protection to farmers so their land is not destroyed
- The need to protect source waters
- The need to prevent extreme nuisance odors and protect the quality of life and property values of neighbors