pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Executive Summary

Food Processing Residual Waste (FPR) is a type of residual waste that is produced in animal and non-animal food processing (slaughterhouses, food packaging facilities, etc.). In Pennsylvania, FPR is able to be used in a normal farming operation as a soil amendment, soil conditioner, and alternative nutrient source. FPR is often transported to and stored at agricultural operations in Pennsylvania for land application. Because FPR is a waste, it is addressed under the Commonwealth's Solid Waste Management Act (SWMA) and by the Commonwealth's residual waste regulations at 25 Pa. Code Article IX. Under the SWMA, FPR application is exempted from permitting as long as guidance in the Pennsylvania Department of Environmental Protection's (DEP) *Food Processing Residual Management Manual* (FPR Manual) is followed.

In the last year, DEP, the Pennsylvania Department of Agriculture (PDA), and state lawmakers have received several comments and complaints related to FPR use in some parts of Pennsylvania. The most common complaints are related to odor and concerns about potential threats to drinking water sources, like groundwater. Often, many complaints submitted to DEP are not violations under the FPR Manual. Since DEP currently maintains the FPR Manual to provide guidance for safe FPR land application, DEP, in partnership with PDA, gathered stakeholders to convene an FPR workgroup to better address concerns related to FPR storage and land application in Pennsylvania. The group: discussed the current status and concerns of the use of FPR in Pennsylvania; evaluated the efficacy of the FPR Manual in addressing existing concerns; and created proposed solutions to enhance Pennsylvania's management of FPR land application and storage at agricultural operations.

The proposed solutions from the workgroup are summarized as follows, with more detail provided in the body of the document:

- Clarify liability and secure documentation;
- Enhance training for FPR haulers;
- Create a clearer definition of FPR;
- Require more stringent odor management for high-odor-risk FPR;
- Require notification of intent to store or apply FPR;
- Codify required minimums in land application system (LAS) plans;
- Reorganize internal management of FPR rules; and
- Enhance education around FPR rules and management.

Introduction

Pennsylvania has had comprehensive residual waste regulations since 1992. These regulations are implemented and enforced by DEP. The residual waste regulations allow for the use of "food processing waste" or "food processing sludge" in the course of normal farming operations. All industries operating within Pennsylvania are also responsible for developing comprehensive source reduction and

management programs. FPR generators have numerous opportunities for beneficial use due to the unique nature of FPR.

Not long after the promulgation of the Commonwealth's residual waste regulations in 1992, a multi-disciplinary workgroup (including regulatory, industry, and academic members) was formed to develop a guidance document to assist individuals involved in managing FPR in Pennsylvania. The culminating product of that workgroup was the DEP guidance document, *The Food Processing Residual Management Manual,* (254-5400-100), first published in June of 1994 and revised in September of 2001. The FPR Manual is referenced in 25 Pa. Code § 287.101(b)(2).

As per 25 Pa. Code § 287.101(a), the operation of a residual waste processing and disposal facility requires a waste management permit, except for activities set forth in subsection (b). In accordance with § 287.101(b)(2), no permit is required for the use of food processing waste or food processing sludge in the course of normal farming operations.

To qualify for the permit exception, the waste must be non-hazardous and best management practices (BMPs) must be implemented through a Land Application Systems (LAS) Plan. Failure to implement BMPs and the LAS Plan has consequences, including but not limited to being subject to the requirements of Chapters 291, 295 and 299.

The term "food processing residual" (and not "food processing waste" or "food processing sludge") was chosen specifically for the FPR Manual to recognize incidental materials generated during preparation of food products as potential resources for beneficial use. The objective of the FPR Manual is to provide a framework for developing FPR source reduction, recycling, and disposal programs through the FPR utilization and disposal hierarchy. The FPR Manual focuses specifically on source reduction and recycling. FPR disposal (for example, landfilling) is viewed only as a last resort when no practical, cost-effective beneficial use can be found.

DEP Engagement Background

Historically, DEP has encountered a relatively limited number of complaint events related to the management of FPR in the Commonwealth (there may been situations where many complaints were submitted in relation to a single FPR event). For example, in a two-year timespan (September 1, 2021, through September 1, 2023) DEP received complaints relative to only 30 FPR events. Some of these events did not actually involve the land application of FPR (for example, some of the events were a farm proposing to receive FPR or constructing tanks to receive FPR). Similarly, the number of FPR management violations issued by DEP has also been limited.

DEP is, however, aware of an increasing volume of FPR being managed in some areas of Pennsylvania, as well as the fact that a significant portion of the FPR originates from out-of-state generators. DEP is also aware that many complaints related to FPR are made to local township officials, state representatives, county conservation districts (CCDs), and other entities, and have not always been submitted directly to DEP, so the true number of complaints or expressed concerns relating to the management of FPR is likely higher than what DEP has received. It is worth noting that the majority of complaints are for odors associated with FPR application; however, off-site detection of the odor is typically not observed by an inspector upon arrival.

DEP handles complaints relevant to the management of FPR with the same care and diligence as any other environmental complaint submitted to DEP. A brief description of the steps taken to address FPR

complaints follows. The integral information to determine during an FPR investigation is: who applied the FPR; where the FPR was applied; and the source of the FPR. Since site conditions may change rapidly after FPR application (e.g., if there is a rainstorm after application), an initial inspection of the subject site is conducted as soon as possible, usually within one business day of receipt of the complaint. The initial inspection verifies the extent of land application and storage and whether setback criteria were met. Any ongoing odor concerns are also noted. If a site representative is available at the time of the initial inspection, the LAS Plan and supporting records are reviewed on-site. Otherwise, the LAS Plan and supporting records are requested for review following the inspection. In the event of FPR spills, the residual waste regulations indicate that immediate cleanup is required.

Upon completion of the inspection and subsequent records review, a notice of violation (NOV) may be issued for spills, encroachment of setback restrictions, and application of FPR that is not supported by an LAS Plan. When warranted, penalties are assessed on the responsible party – in most cases, this is the individual or business that is responsible for transporting and land applying the FPR.

Workgroup Overview

In response to a large number of complaints related to FPR odors that recently arose in parts of Pennsylvania, and to ensure that proper on-farm management of FPR remains a viable option for Pennsylvania agricultural operations, DEP gathered stakeholders to convene the Pennsylvania FPR Workgroup to better address concerns related to FPR application and storage. The workgroup held six meetings, and brought together government entities, regulated community members, and agricultural experts. Among the workgroup were representatives from the following:

- Ag Conservation Services
- Agri Applicators
- Clemens Food Group
- Cumberland County Conservation District
- DEP Bureau of Waste Management
- DEP Bureau of Watershed Restoration and Nonpoint Source Management
- DEP Policy Office
- Governor's Office of General Counsel
- Material Matters
- PDA Office of Legislative Affairs
- PDA Policy Office
- PennAg Industries
- Penn State Center for Agricultural and Shale Law
- Penn State Extension
- Pennsylvania Agricultural Ombudsman Program
- Pennsylvania Farm Bureau
- Pennsylvania House of Representatives
- Reinford Farms
- State Conservation Commission (SCC)

The workgroup initially convened on October 25, 2023. The first meeting focused on level setting, providing space for DEP to explain the purpose of the workgroup. The focus of the workgroup was determined to be:

- Reducing odor from application and storage of FPR;
- Protecting ground and surface water from FPR contamination;
- Providing compliance clarity for on-farm application and storage; and
- Maintaining soil health.

The workgroup received presentations from DEP's Bureau of Waste Management on the last year of compliance issues related to FPR, and comparisons to FPR management rules in surrounding states. The SCC provided the group with some background on how PDA and SCC assist in the Commonwealth's FPR management. Finally, Jared McIntire of Ag Conservation Services provided an in-depth presentation on one of the current requirements for FPR application, an LAS Plan. An LAS Plan provides most of the documentation currently required for sound application and storage of FPR under the permit exemption in the SWMA.

At subsequent meetings, the workgroup endeavored to identify current weaknesses in the management of FPR in Pennsylvania and began proposing solutions to address them. The group was divided into three small groups which convened outside of the monthly workgroup meeting. These groups were created based on the expertise of the larger team, and focused on: Technical Updates, Management Implementation, and Legal Analysis.

- The Technical Updates group was made up of DEP staff, SCC staff, and individuals who were familiar with using or planning use of FPR for storage or application on an agricultural operation. The group primarily focused on potential on-farm improvements and necessary updates to Chapter 8 of the FPR Manual. The group provided the larger workgroup with suggested additions to the LAS Plan, including a sample LAS Plan for review. The group was instrumental in creating the proposal, particularly with on-farm improvements and updated reporting for FPR application and storage.

- The Management Implementation group was made up of DEP staff, SCC staff, CCD representatives, and others with experience in FPR hauling or agricultural education. The group primarily focused on the resources needed to support education and outreach along with updates to FPR management rules. The group additionally discussed ways to improve reporting from FPR haulers and looked at manure hauling as another form of oversight. The group provided recommendations. For example, documents and creating a single place where FPR rules could be found, including answers to questions related to water testing, DEP or SCC response, and how complaints are managed.

- The Legal Analysis group was made up of attorneys from DEP and PDA along with other legal professionals in the workgroup. The Legal Analysis group was tasked with reviewing recommendations from the larger group to assess their legality and to determine the proper approach to implement recommended changes. The group also answered any legal questions related to DEP's current or potential enforcement authority from the SWMA.

The full workgroup met a total of six times, spending most of the meetings in open discussion. The last substantial meeting of the workgroup was on April 11, 2024, where DEP and SCC staff presented a policy proposal for the future of FPR management in Pennsylvania. This meeting included a discussion on transferring oversight of FPR use on agricultural operations to the SCC and the importance of being able

to trace back FPR to its source to ensure that the waste is characterized correctly. The final meeting of the workgroup on May 2, 2024, was only held to review the draft report and solicit any feedback for the final report.

Workgroup Findings: Perceived Issues

While DEP has been able to track complaints sent to DEP offices, the workgroup identified several perceived issues with FPR management. Many of these issues were made apparent through complaints to CCDs, calls to elected officials, or the experiences of agricultural operators, haulers, planners, and land appliers on the workgroup. Most perceived issues focused on three points: (1) FPR can be extremely odorous and is not managed well enough; (2) FPR is transported in Pennsylvania without sufficient information on the material being hauled; and (3) because DEP's Bureau of Waste Management does not have sufficient expertise in agricultural practices to have sole oversight of FPR storage and application on agricultural operations, DEP's Bureau of Watershed Restoration and Nonpoint Source Management, the SCC, and PDA should be consulted.

(1) FPR Odor

As currently defined, FPR is a broad term referring to residual waste from plant and animal-derived food waste. Some of this material is particularly odorous, especially animal-derived FPR and FPR with a high fat content. Because current guidance is based on all FPRs regardless of how they are generated, current policy is not adequate to effectively manage highly odorous FPRs in a way that would adequately manage the odors. Odor complaints account for the vast majority of FPR-related concerns raised to DEP. In these cases, DEP may go to an agricultural operation and affirm that the operation is in compliance with current requirements and BMPs, even if odor was present.

The workgroup identified odor as a major concern and highlighted the need for odorous FPR to be handled differently than less odorous FPR. The group also identified the potential for greater requirements for management of FPR in storage and land application to reduce the risk of odor.

(2) Transportation

While most residual waste is transported by haulers certified under PDA's Commercial Manure Hauler and Broker Certification Program, FPR hauled under the permit exemption can be done without any training on FPR rules or familiarity with the FPR Manual. While most FPR generators and haulers are responsible stewards of FPR being transported within Pennsylvania, the risk posed by untrained haulers is significant. Additionally, based on several reports from workgroup members and DEP staff, FPR is being transported across state lines, both into and out of Pennsylvania. Workgroup members suggested that the increase in FPRs may be the result of more stringent management standards in other neighboring states. While FPR importation seemed to be a source of some frustration, the root of the concerns stemmed from the lack of clear liability if FPR was mischaracterized, inappropriately applied, or dropped off at an agricultural operation without an LAS Plan. The source of FPR that is stored or applied in Pennsylvania may not be known or is difficult to identify.

The workgroup discussed several potential solutions to these issues. It was concluded by the workgroup members that banning the importation of FPR would pose legal and logistical challenges while also limiting the potential for FPR to be beneficially used on agricultural operations. The workgroup identified proposed solutions for additional documentation, reporting, and clear responsibility at the generation, transportation, storage, and land application phases.

(3) DEP Management

Currently, DEP manages FPR on agricultural operations under the authority from the SWMA. DEP's Bureau of Waste Management currently responds to complaints related to FPR. The Bureau of Waste Management also maintains the FPR Manual and makes enforcement decisions based on the authority provided by law. The Bureau of Waste Management has strong expertise in the management, collection, storage, transportation, use and disposal of residual waste. The workgroup also recognizes that DEP has built a successful and mutually beneficial relationship with agricultural operators and the greater agricultural community in Pennsylvania through the work of DEP's Bureau of Watershed Restoration and Nonpoint Source Management.

Recognizing that DEP's management of FPR is limited to the authority given to DEP in statute and regulations, the workgroup focused on potential updates to the SWMA. The group also recognized the important role that the SCC serves in collecting information and building relationships with agricultural operations across Pennsylvania, especially as it pertains to the Nutrient Management, Odor Management, and Certified Manure Hauler and Broker Programs. In fact, FPR is already built into nutrient management plans when applicable. The group noted that if the SCC obtained primary oversight of FPR land application and storage on an agricultural operation, the Bureau of Waste Management would still be best suited to deal with FPR as a residual waste in all other contexts.

Workgroup Findings: Proposed Solutions

Through each collaborative meeting, the workgroup compiled suggested improvements to FPR management in Pennsylvania. These improvements are aimed at tackling the challenges identified by the workgroup. Some proposed solutions will only require changes in guidance or administration by the regulatory agencies, but some will require statutory or policy change. The below outline is broken into categories, but it is the view of the workgroup that this proposal, in entirety, would be an effective approach to managing the transportation, storage, and land application of FPR as it relates to agricultural operations.

(1) Clarify liability and secure documentation

In order to make clear the responsible party at various stages of FPR management, documentation requirements should be in place for all parties in possession of the FPR. All FPR haulers should possess documentation outlining the source and characterization of the FPR, along with the name of the party responsible for the characterization (that is, the FPR generator or the hauler). This documentation should be required of all FPR transported within Pennsylvania, including FPR that is brought into Pennsylvania from out of state.

Documentation should be transferred with control of the FPR. In cases where haulers drop FPR at an agricultural operation for storage or land application, the operator or their designated applier should collect documentation of the characterized FPR and sign, indicating their responsibility for properly managing the FPR from that point forward.

The anticipated outcome of this increased documentation and chain of custody reporting is that agricultural operators likely would not be held accountable for any improper characterization or management of the FPR by generators or haulers, while there would also be clear documentation to identify a responsible party in the case of an incident. This requirement would need to be incorporated in statute by amending the SWMA to create specific document transfer requirements. The FPR Manual would be updated to reflect this requirement.

(2) Enhance training for FPR haulers

Training from the SCC would aid in ensuring that haulers of FPR are aware of their responsibilities, which include verifying that an LAS Plan is in place for the agricultural operation prior to the hauler leaving the FPR at the operation to be stored and land applied. Also, training would ensure there is a proper contact if the FPR was spilled, leaked, or released during transportation. Through the Commercial Manure Hauler and Broker Certification Program, FPR haulers should be certified, which would require an amendment to the SWMA. An important aspect of this training will be to clarify that haulers should confirm that agricultural operations have an LAS Plan in place before dropping FPR off at that site.

Once the SWMA has been amended to require haulers of FPR to be certified under the Commercial Manure Hauler and Broker Certification Program, the program would be updated to include mention of FPR and to reference any future rules that are created outlining requirements for FPR haulers.

The anticipated outcome of this proposed solution is that all FPR haulers in Pennsylvania will have received the training needed to mitigate risks to human and environmental health while transporting FPR. The implication of FPR haulers not following the required training could be the loss of their certification. Haulers would also serve as the initial step in preventing inappropriate storage or application of FPR by confirming that LAS Plans are in place on all operations that store and land apply FPR.

(3) Create a clearer definition of FPR

Recognizing that some FPR is more odorous or potentially a higher risk of odor than others, the definition of Food Processing Residual Waste should be bifurcated to separate high-odor-risk FPR from low-odor-risk FPR. This definition should ensure that all animal-derived FPR is contained in the high-odor-risk category.

Creating a definition of high-odor-risk FPR will allow for design of specific BMPs for that type of FPR, which will, in turn, facilitate more effectively mitigating the risk of odor in land application and storage of high-odor-risk FPR (see proposed solution #4).

(4) Require more stringent odor management for high-odor-risk FPR

In order to more clearly require effective BMPs for FPR storage and land application, agricultural operations managing FPR should be required by statute to follow performance standards that may be satisfied through an LAS Plan prepared in accordance with the FPR Manual, which would clearly divide BMPs into categories based on effectiveness in mitigating odor through calculation in an Odor Site Index (OSI). Odor BMPs should apply to storage and land application of high-odor-risk FPR on operations, and there should be clarity in the manual on when storage and application BMPs should be used.

While statutory updates would be needed to create the requirements for FPR management in the SWMA, pointing to guidance from DEP and the SCC in the FPR manual would create the opportunity to quickly update BMPs based on any new technology developments.

The anticipated outcome of this proposed solution is that greater front-end management of FPR in storage and land application will result in more effective odor control. These additional restrictions will also give the SCC, DEP, and the agricultural operation clarity as to when agricultural operations have an LAS Plan that is or is not effectively mitigating the risk of odor from FPR storage or applications.

(5) Require notification of intent to store or apply FPR

While the workgroup determined that the self-implementing nature of FPR use on agricultural operations should remain, it would benefit Pennsylvania to better understand the current landscape of FPR use. In order to facilitate this understanding, before accepting FPR for storage or application, agricultural

operations with an LAS Plan should submit an "FPR Notification" to an agency of the Commonwealth, which should be recorded by the agency or departmental administrative commission (for example, SCC) in a database shared with other relevant agencies (for example, DEP and PDA). This notification would provide notice that an LAS Plan has been developed and is being implemented, including adequate odor management measures for FPR storage or application. This notification requirement should be included in the SWMA and compliance clarity should be provided in the FPR manual.

The anticipated outcome of this proposed solution is that Pennsylvania will begin to understand how widespread and diverse FPR use is in the Commonwealth. The notification will additionally allow the agencies to reference complaints with documented FPR activity. For example, if an FPR-related complaint comes to the SCC, they would be able to search for the operation's notification, quickly finding out if the operation may properly storage and apply FPR.

(6) Codify required minimums in LAS Plans

In order to ensure that LAS Plans contain enough information for the SCC to understand how effectively FPR was managed on agricultural operation, and to ensure that operators and appliers have the tools needed to effectively manage odors, the LAS Plan should include minimum required BMPs. LAS Plans should all be required to list BMPs on the operation related to FPR storage and land application as listed in the FPR Manual to affirm that these management tools are in place before FPR comes onto the operation. These minimum requirements of LAS Plans should be included in the SWMA and compliance clarity should be provided in the FPR manual. An Odor Site Index (OSI) should be included in any LAS Plan which includes the use of highly odorous FPR. The OSI is a tool that quantifies odor risk based on the product, surrounding risks (neighbors), and BMPs, and is currently used in the Odor Management Program administered by SCC.

The anticipated outcome of this proposed solution is that the SCC could determine if the operator implemented their LAS Plan in accordance with the required minimum to adequately manage odor before storing or land applying highly odorous FPR. The workgroup considered requiring that LAS Plans be submitted to the SCC or to CCDs, but the group was clear in stating that CCDs may not have the bandwidth to take on this additional task and accepting such responsibility would ultimately be a choice for each CCD to accept the delegated authority or not.

(7) Reorganize internal management of FPR rules

Recognizing that DEP's Bureau of Waste Management has experts in residual waste management and beneficial use, but not in agricultural operations, the workgroup recommends that oversight of FPR management that is done under the permit exemption in § 287.101(b)(2) of the SWMA be transferred to the SCC. The workgroup concluded that the SCC has experience with this on-farm oversight through the Nutrient and Odor Management and Commercial Manure Hauler and Broker Programs and would be well suited to handle the reporting and odor management components of this proposed framework provided that the SCC receives adequate complement to administer the FPR management program.

The SCC, PDA, and DEP should revise their existing Memorandum of Understanding to outline the responsibilities relevant to FPR management, including: the addition of DEP expertise to update the FPR Manual and to support the SCC in responding to complaints; and communication between the SCC and DEP related to following up on relevant compliance and enforcement actions. DEP should continue to have sole authority and oversight of FPR that is managed as a residual waste, and is not being transported, stored, or applied under the permit exemption for normal farming operations in the SWMA. Staffing and capacity needs at the SCC would need to be elevated for consideration as well.

(8) Enhance education around FPR rules and management

This proposal contains significant changes that, while intended to improve overall management of FPR in agricultural settings in Pennsylvania, will include some additional responsibility for those handling the material. The workgroup also recognizes the increased public interest in FPR storage and land application and the need for greater education on the use and oversight of FPR use in Pennsylvania. The workgroup recommends that the SCC and DEP collaborate to create educational materials related to any and all new FPR rules that may be created. These resources should be available for farmers, haulers, producers, and members of the public. The SCC and DEP should also work to rollout these new rules at common outreach opportunities such as public meetings, conferences, and other agricultural events in Pennsylvania. There are costs associated with education and outreach which will need to be addressed to ensure the support of this proposal. SCC and DEP would need no less than $150,000 in general appropriation for educational materials, implementation, and outreach in the first year to implement the education and outreach related to this proposal.

The workgroup additionally recommends that DEP and the SCC work together to create standard procedures for handling complaints related to FPR. These should clarify who should receive the complaints, how quickly they should be investigated, and what information should be provided from the complainant and from the investigated site. The standard procedures should be developed and shared with CCDs, DEP regional offices, and other key partners to ensure that complaints are directed correctly and handled in a timely and transparent manner.

Finally, DEP and SCC should work together to create a landing page on the DEP website for both citizens and industry partners to connect with created resources, understand the FPR rules, and learn what is needed to submit a complete complaint. Based on demand from some areas, this website should provide a list of Pennsylvania's accredited environmental laboratories for those who wish to have their private well water tested based on FPR-related concerns.

Regardless of the policy approach taken in response to this report, the workgroup recommends that DEP and the SCC endeavor to keep the public informed of all internal changes related to FPR policy and procedure. The recent revision of DEP's *Manure Management Manual* led by DEP's Bureau of Watershed Restoration and Nonpoint Source Management was highlighted as a successful example of public outreach and open feedback. The Bureau of Waste Management and the SCC should consult the Bureau of Watershed Restoration and Nonpoint Source Management before making updates to the FPR Manual in order to learn from the successful collaboration in updating the *Manure Management Manual* with CCDs, advisory committees, and the agriculture community in Pennsylvania.

The anticipated outcome of this proposed solution is that Pennsylvanians will better understand the role FPR plays on farms and have the tools needed to learn, and, when necessary, complain about FPR storage and land application under the permit exemption.

Final Thoughts

In six meetings, the Pennsylvania FPR Workgroup compiled notable concerns with the FRP management in Pennsylvania, worked collaboratively to identify potential solutions, and compiled a cohesive proposal to best address management of FPR in Pennsylvania. At the outset, the workgroup was formed to address a growing number of odor complaints, and was intentionally made up of workgroup members from a variety of backgrounds. While it not always easy to look critically and constructively at current policy, this group represented truly sound governance in Pennsylvania – people with different backgrounds,

ideas, and concerns came to the same table for six months to reasonably agree on a best path forward. The workgroup's effort and collaboration should be celebrated.

It should be noted that some of the workgroup's proposed solutions will require modifications to the way FPR is managed in Pennsylvania. As farmers, land appliers, haulers, municipalities, and Pennsylvania residents work to understand this proposal, it is the responsibility of DEP, PDA, and the SCC to create resources that facilitate that education and understanding. FPR is a unique material, but it does have a place in agricultural operations as it is an innovative and beneficial use of waste that would otherwise be landfilled. The workgroup also emphasizes that this material can have other beneficial applications in agriculture too, not the least of which could be anaerobic digestion and energy production.

The workgroup believes that the proposed solutions will make positive steps to reduce the risk of odor and pollution associated with FPR storage and application in Pennsylvania, while putting measures in place to clarify the government's ability to take action to address wrongdoing. It is worth noting that, in addition to FPR, many Pennsylvania farms also manage other odorous substances (such as animal manures). A better understanding is needed of the role FPR plays in driving odor complaints relative to other odorous materials. Additionally, the workgroup recognizes that FPR is often commingled with manure, with the commingled materials currently being regulated as manure. While this seems effective, DEP, PDA, and the SCC should clarify the category that this commingled material should fall under and should revisit this proposal at that time to determine if FPR is responsibly managed as manure when commingled with manure.

The workgroup's proposed solutions are designed to address FPR stored and land applied in Pennsylvania and are likely to result in better management of odor from FPR in Pennsylvania. Agricultural odors are, to some extent, unavoidable and, as noted previously, can come from other sources as well. The workgroup recommends that odor complaints be tracked to understand how effective these proposed solutions are, and to determine if the odor complaints that have been attributed to FPR may be from other sources. If any citizen in the Commonwealth suspects wrongdoing related to FPR or any other agricultural material causing significant odor or pollution, they should contact DEP in their region.