

**STATEMENT OF CONSIDERATION RELATING TO
401 KAR 45:010, 401 KAR 45:020, 401 KAR 45:025, 401 KAR 45:030, 401 KAR 45:040,
401 KAR 45:050, 401 KAR 45:080, 401 KAR 45:100, 401 KAR 45:140, and 401 KAR
45:250**

(Not Amended After Comments)

**401 KAR 45:105 and 401 KAR 45:160
(Amended After Comments)
Energy and Environment Cabinet
Department for Environmental Protection
Division for Waste Management**

I. The public hearing on 401 KAR 45:010, 401 KAR 45:020, 401 KAR 45:025, 401 KAR 45:030, 401 KAR 45:040, 401 KAR 45:050, 401 KAR 45:080, 401 KAR 45:100, 401 KAR 45:105, 401 KAR 45:140, 401 KAR 45:160, and 401 KAR 45:250 scheduled for November 21, 2023 at 5:30 pm at the Energy and Environment Cabinet’s Training Room C was canceled in accordance with KRS 13A.270(7). However, written comments were received.

II. The following people submitted written comments:

<u>Name and Title</u>	<u>Agency/Organization/Entity/Other</u>	<u>Testimony</u>
Daymond Talley, Deputy Chief of Operations	Louisville Metropolitan Sewer District	Written
Todd Stephens, President	H&A Resources	Written
James D. Chaney, Executive Director	Kentucky League of Cities	Written
Tom FitzGerald, Of Counsel	Kentucky Resources Council	Written

III. The following people from the promulgating administrative body responded to the written comments:

<u>Name and Title</u>	<u>Agency/Organization/Entity/Other</u>
Michael Mullins, Environmental Scientist Consultant II	DEP Commissioner’s Office
Tony Hatton, Commissioner	DEP Commissioner’s Office
Gary Logsdon, Assistant Director	Division of Waste Management

IV. Summary of Comments and Responses

401 KAR 45:010, 401 KAR 45:020, 401 KAR 45:025, 401 KAR 45:030, 401 KAR 45:040, 401 KAR 45:050, 401 KAR 45:080, 401 KAR 45:100, 401 KAR 45:105, 401 KAR 45:140, 401 KAR 45:160, and 401 KAR 45:250

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(1) Subject Matter: Stakeholder Input Prior to Filing Administrative Regulations

(a) Comment: Tom FitzGerald, Kentucky Resources Council

The complete lack of communication with interested and affected stakeholders prior to proposal of the draft regulations is itself of concern, since we have all known for some time that the proposed regulations would be required to be promulgated within sixty days of the effective date of the Act, yet no outreach appears to have occurred, and certainly none with those organizations that assist landowners with environmental issues created by the land application and other management of wastes by other parties.

(b) Response: The Cabinet disagrees with the claim that the administrative regulations did not receive stakeholder input prior to filing the package with the Legislative Research Commission. The Cabinet drafted the administrative regulations in a manner consistent with the timeline in SB 213 (KRS 224.50-765) and sent them out to stakeholders for comment August 11th and providing a week to review and comment. During the pre-vetting process the Cabinet received responses from three commenters of which the Kentucky Resources Council was one that provided comments. All comments were reviewed and adjustments were made in response to those comments before filing with the Legislative Research Commission on August 24, 2023.

(2) Subject Matter: Explanation and Justification of Approach Taken

(a) Comment: Tom FitzGerald, Kentucky Resources Council

The commenter stated that the Kentucky Resources Council was extremely concerned with the approach taken by the Cabinet in the implementation of the 2023 bill, SB 213. The bill directed the Cabinet to promulgate administrative regulations “Within sixty (60) days of June 29, 2023” that are compliant with the drafting requirements of KRS Chapter 13A and “that are in conformance with 40 C.F.R. pt. 503”. The bill also provided the Cabinet the authority to develop a permitting program and siting criteria for the regulation of biosolids. The commenter believes that the Cabinet should have merely referenced the pollutant limits in 40 CFR 503.13, revise vector and pathogen standards in light of 503, maintain the current permitting program, and siting requirements. The commenter believes that the approach taken by the Cabinet has weakened the biosolids landfarming regulatory program.

“The new mandate of SB 213 did not mandate elimination of any of the current permitting requirements of state law, because the Part 503 regulations do not have permitting requirements, but instead are self-implementing between the facility and the EPA. The Cabinet had and has full authority to establish or retain all permitting

conditions it deemed necessary to regulate these sewage sludges. And it has a legal obligation to explain and justify in the Affirmative Consideration document, why, having previously determined that all of the current permitting requirements of 401 KAR 45 should apply to wastes now defined as biosolids, it has now proposed to exempt biosolids land spreading from many of these permitting requirements”.

(b) **Response:** The Cabinet does not agree with the commenter. It is the Cabinet’s belief that the proposed administrative regulations follow the intent of the authorizing statute. In interpreting KRS 224.50-765 the cabinet referenced the applicable sections of 40 CFR Part 503 that would relate to land application of biosolids. The statute directed the cabinet to promulgate administrative regulations that are in conformance with 40 CFR Part 503 and not select portions of 40 CFR Part 503. By only referencing or including those pollutant limits and pathogen and vector requirements, the Cabinet would have been out of compliance with the statute and could have been issued a finding of deficiency by either the Administrative Regulation Review Subcommittee or either of the Natural Resources and Energy Committees. There are sections on definitions, sampling and analysis, exclusions, management practices, and other sections that would have left the cabinet administrative regulations out of compliance with the statute. It is the Cabinet’s belief that in order to comply with the statute a regulatory package needed to reference all of 40 CFR Part 503 related to land application of biosolids except for those portions where the cabinet was directed by the statute to draft requirements that were different than 40 CFR Part 503 (permitting and siting criteria).

(3) **Subject Matter:** Biosolids Have Been Exempt from Substantive Standards

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The new mandate of SB 213 did not mandate that the Cabinet eliminate or modify the siting criteria of existing regulations, except to modify those setbacks and other siting restrictions to conform to any contained in the Part 503 regulations as the Cabinet deemed necessary. For the Part 503 regulations themselves recognize that those siting criteria may need to be adjusted in order to address site-specific geologic, soil, and hydrologic conditions.

“Yet rather than maintaining the current siting and other procedural and substantive regulatory requirements, such as public notice and comment, general permitting conditions, a clear requirement to comply with 401 KAR 30:031 environmental performance standards, and groundwater monitoring and corrective action, while addressing the differences in standards for that subcategory of municipal wastewater treatment plant sludges that fall within the definition of “biosolids” and are subject to the federal 503 standards, the proposed regulations have exempted biosolids from the substantive standards and the regulatory process to the point that the contamination of farmland through the land application of wastewater sludges is much more possible.”

(b) **Response:** The Cabinet appreciates the concern the commenter has expressed in this comment. However, the Cabinet does not agree with the commenter’s position as it relates to the items mentioned. The siting criteria in Section 5 of 401 KAR 45:100, which previously addressed biosolids (sludges from municipal wastewater treatment

plants), were reevaluated with this promulgation and it was determined that the proposed setbacks in Section 5 of 401 KAR 45:105 are protective for the group of contaminants that are contained in 40 C.F.R. 503.13. The setbacks in 40 C.F.R. Part 503 consisted of a 10 meter setback from waters of the United States. This setback was changed to more protective standards in the proposed 401 KAR 45:105. The Cabinet also clarified in this draft regulation provisions that were unclear and lacked definition in the previous regulation. Specifically, the proposed regulation further defines karst features and the definition of sinkholes. Specifically, the Cabinet identified the immediate catchment area surrounding a sinkhole and requires a 200-foot setback. Previous regulations did not address a circumstance where a sinkhole catchment area may exceed 300 feet area. The setbacks in the draft regulation are no less protective than those in the previous regulation. The Cabinet does not believe that under normal agricultural operations that the revised setbacks are any less protective than the previous setbacks. Also, the Cabinet has included a viable and protective permitting program that includes compliance with the environmental performance standard in 401 KAR 30:031. Groundwater monitoring has not been removed for land application of biosolids. In reality, this is not a reduction in requirements from those which are in 401 KAR Chapter 45 for the land application of biosolids. Groundwater monitoring can still be required for biosolids permits as part of a corrective action process.

(4) **Subject Matter:** Farmland Contamination

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

When that contamination of farmland occurs, it will be only by happenstance that the contamination is discovered, and there will be no obligation under these proposed regulations short of state superfund law, to remedy the contamination. And the burden of the contamination of land and groundwater resources will fall on the farmer, and not the cities whose systems generated the sludges.

The interests of the farming community in assuring that the sludges that they obtain are not contaminated with PFAS and other persistent and bioaccumulative chemicals that have no agronomic utility or value, but which have a real and proven potential for contamination of land, crops, and livestock, is being sacrificed in order to accommodate the short-term interests of the cities in inexpensive disposal of their wastewater treatment sludges. The long-term interests of the cities and of the Commonwealth, in the protection of agricultural land, public health, and avoidance of future superfund liability, militates against the inadequate management of municipal sludges such as is allowed under this regulatory proposal.

(b) **Response:** The Cabinet is fully aware of the issues related to industrial sources (including per- and polyfluoroalkyl substances (PFAS)) potentially contributing to impacts to agricultural lands. 40 C. F. R 503.12 requires notification to the landowner of the “necessary information to comply with the requirements in this subpart”. 401 KAR 45:105 requires that this notification should also include a statement that the “biosolids may contain constituents from an industrial pretreatment program”. Also, this same information is to be supplied to adjoining landowners.

The Cabinet has conducted an extensive review of publicly owned treatment works (POTWs) including information regarding those POTWs that have pretreatment agreements. As part of the Cabinet's evaluation POTWs with pretreatment agreements from facilities that have a PFAS related industry code have been identified. Based on our evaluation the majority of these facilities manage their biosolids at a municipal contained solid waste landfill. This draft regulation authorizes the Cabinet pursuant to 40 C.F.R. 503.5 to impose additional requirements related to the management and disposal of biosolids. As the Cabinet deems necessary it may take steps to mitigate the land application of biosolids from POTWs receiving industrial discharges, including emerging contaminants. In the meantime, the Cabinet expects federal rule makings and the completion of a biosolids risk assessment to clarify the framework for land application of biosolids that may contain PFAS. 401 KAR 45:105 does not reduce the notification or discovery of contamination. The Cabinet's authority to enter and inspect or take complaints has not changed under this proposed administrative regulation. These notices apprise the landowner that their property will be receiving material that could contain contaminants from industrial sources.

(5) Subject Matter: Industrial Discharge

(a) Comment: Tom FitzGerald, Kentucky Resources Council

The proposal is extremely overbroad and is inconsistent with the 2023 legislative mandate. It defines "biosolids" as certain materials resulting from the treatment of domestic sewage or sewage sludge in a treatment facility and provides that when biosolids are "generated from wastewater treatment at a publicly owned treatment works" they shall be "regulated in conformance with the most recent version of 40 C.F.R. pt. 503."

Yet the proposed regulations appear to apply 40 CFR Part 503 to MWWTP wastes from facilities that are outside of the scope of Part 503. 40 CFR Part 503 applies only to "sewage sludge generated during the treatment of domestic sewage in a treatment works." 503.1(a)(1). The sludge is that generated by treatment of domestic sewage. Id. "Domestic sewage" is defined in 40 CFR 503.9(g) as "waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works." Thus, 40 CFR Part 503 does not apply to municipal treatment sludges that accept industrial or commercial wastes. Yet the Cabinet's regulatory changes appear to apply 40 CFR Part 503 more broadly, which is inconsistent with the limited reach of the federal regulations.

Application of 40 CFR Part 503 should be limited by state regulation to those waste sludges generated where domestic sewage is treated without introduction of industrial or commercial wastes, in order to be consistent with the exclusion in 40 CFR 503.6(d) for sludges from industrial treatment works commingled with domestic sewage. More broadly applying 40 CFR 503 standards or setbacks to mixed domestic, industrial, and/or commercial sludges would not be consistent with or in accordance with the limited reach of 40 CFR Part 503.

(b) Response: The Cabinet does not agree with this comment. 40 C.F.R. 503.1 states that

40 C.F.R. Part 503 is meant for the regulation of "sewage sludge generated during the treatment of domestic sewage." In relevant part, 40 C.F.R. 503.9(w) defines "sewage sludge" as the "solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works." While 40 C.F.R. 503.6 excludes using 40 C.F. R Part 503 for the regulation of industrial discharges, it is the Cabinet's understanding of the federal rules that "sewage sludges" derived from "domestic sewage" that may be comingled with industrial discharges are not prohibited from regulation as a biosolid under the 40 C.F. R. Part 503 program. Many wastewater treatment plants receive industrial discharges into their facility. There are no clear prohibitions under the current program that prevents sewage sludge that includes domestic sewage and industrial discharge materials from being land applied. It is also the Cabinet's understanding that prohibiting sludges from wastewater treatment plants that have received industrial discharges was not intended by the U. S. Environmental Protection Agency. The U. S. Environmental Protection Agency issued a guidance document (*A Plain English Guide to the EPA Part 503 Biosolids Rule – September 1994*) that clarifies that any fraction of domestic sewage in an industrial wastewater stream would subject that waste stream to the provisions of 40 C.F.R. Part 503. Lastly, the proposed regulations incorporates the provisions of 40 CFR Part 503 that allow the Cabinet to address these comingled sludges. Specifically, 40 CFR 503.5(a) allows the agency to address the use of "domestic sewage" that is cotreated with industrial discharges on a case-by-case basis before permitting the use of the resultant biosolids.

(6) **Subject Matter:** Testing Sludges for All Known Contaminants

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The proposed regulations fail to require that the cities test the sludges for the presence and concentrations of heavy metals of concern, PFAs, and other contaminants that have no agronomic value, yet are present in the sludges.

Absent such a complete characterization of the composition of the sludges, the Cabinet cannot assure that the cities are complying with the requirements of either 40 CFR Part 503 or of Kentucky law. Land application of contaminated sludge containing materials that are neither organic nor of agronomic value is a release of a contaminant into the environment, nothing more or less.

Biosolids are defined in the new law as being "nutrient-rich, organic residual material" that can be applied "to improve and maintain productive soils." This means two things – first, the presence of contaminants in sewage sludge that neither improve soils nor maintain their productivity, and which are not "organic" or "nutrient-rich" renders that sludge something other than biosolids and makes that sludge ineligible for land application either under the 503 standards or as a "biosolid."

Second, the presence of such contaminants in the sewage sludge threatens the long-term contamination of the land, since without knowing the levels of such contaminants, and applying the sludges based solely on the presence and concentration of the nutrients relative to the agricultural use of the land, overapplication of such contaminants can occur resulting in contamination of the land both for agricultural and other future uses.

Conversion of the land, for example, to residential use in the future might require additional remediation of the property to meet applicable soil or groundwater screening limits.

40 CFR 503.5(a) specifically provides that the permitting authority “may impose requirements for the use or disposal of sewage sludge in addition to or more stringent than the requirements in this part when necessary to protect public health and the environment from any adverse effect of a pollutant in the sewage sludge.”

The Cabinet is aware of the existence both of circumstances in other states where land application of PFA-contaminated sewage sludge has caused significant environmental disruption, and of literature documenting the presence and leaching of PFAs into the environment from land application of MWWTP sludges. See: Sepulveda et al., Occurrence and Fate of Perfluorochemicals in Soil Following the Land Application of Municipal Biosolids, Environmental Science and Technology (2011).

The Cabinet is also presumed to be aware that research has identified PFAs and other contaminants of emerging concern (CECs) in the leachate from municipal waste landfills, and that MWWTPs that receive leachate from MSW landfills may have elevated levels of these CECs in both their discharges and the resulting solids collected by the NWWTPs. See: Propp et al., Organic contaminants of emerging concern in leachate of historic municipal landfills, Environmental Pollution (2020); Minnesota, a birthplace of PFAS, tackles contaminated waste sites on multiple fronts, Waste Dive (2023). These articles and papers are incorporated herein by reference as if fully set forth below, and are submitted in conjunction with these comments.

Yet knowing that PFAS are likely to be present and to pose such a health concern, the agency has notably failed to categorically require testing for such contaminants. Such a characterization requirement should be imposed categorically, and to the extent that a source believes that it can justify a variance based on a demonstration of a lack of such contaminants in representative sampling, it can seek such a variance.

Complete characterization of MWWTP wastes intended for land application must be required in order to fully protect farmland, farmers, the economic stability of the municipalities with respect to creation of open-ended environmental liabilities, and the environment.

(b) Response:

Prior to the filing of Senate Bill 213, the agency actively encouraged the bill sponsor and other stakeholders to include the necessity for siting criteria, setback criteria and the necessity of obtaining a permit from the agency. These additional requirements are not included in 40 CFR 503.

The agency drafted the proposed regulations fully understanding the potential implications of emerging contaminants and how they may exist within the biosolids/landfarming chain of management of these materials. In fact, these concerns

were the primary foundation of the agency's insistence that siting criteria and setback criteria be included in SB 213.

The challenge to address PFAS in biosolids is a difficult issue that is being debated across the nation. The agency is aware that there are specific locations in other states where the long-term application of biosolids containing emerging contaminants has been determined to be impactful to public health and the future viability of the land on which it was applied.

Biosolids are a source of special waste that will continue to be generated and the options for management of biosolids include: 1) treatment prior to land application, 2) disposal in a permitted landfill, 3) temporary or permanent management at the point of generation or at some other location controlled by the generator, and 4) land application at other locations. Presently, all of those options have to be considered and available for implementation until such time that emerging contaminants can be reduced as they are received at the wastewater treatment facility. The reduction of emerging contaminants at the wastewater treatment facility will require both regulations, technology, funding, and time before any meaningful reduction can occur.

The agency is fully aware of the potential implications of the land application of biosolids that may contain emerging contaminants. What is much more difficult to determine, is how to bridge the gap between the immediately necessary biosolid management needs for municipal wastewater treatment works while waiting for the regulations, and technology, funding to be developed and implemented.

It is true that 40 CFR Part 503 provides flexibility to the implementing agency to add requirements to its programs as necessary to protect human health and the environment. In an effort to notify landowners of the potential contents of biosolids, the draft regulation requires the generator to notify the landowner that the biosolids may contain residue and contaminants from industrial discharges. Also, the draft regulation enables the director to require biosolids be analyzed for additional constituents as deemed necessary to protect human health and the environment. These requirements are in addition to what is required by 40 CFR Part 503 and SB 213.

Recently, the Science Advisory Board proposed to the United States Environmental Protection Agency that it should revisit the risk assessment that it had conducted on biosolids. It is expected that the re-evaluation of the risk assessment will be finalized in late calendar year 2024. Until such time, it would be difficult legally and perhaps technically premature to impose requirements before the science is finalized by those considered to be experts. To that end, the draft regulations seek to initiate a notification process to the landowner while maintaining the ability to land apply biosolids to those who accept them.

The agency has also included some requirements related to groundwater considerations in the application process. 40 CFR Part 503 does not include any requirements for the protection of groundwater, except that it may have been considered in the original risk

assessment conducted by USEPA. Even though there are no specific groundwater provisions in 40 C.F.R. Part 503 the draft regulations do take them into consideration.

(7) **Subject Matter:** Lack of Clear Compliance with 401 KAR 30:031

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The lack of obligation to meet the environmental performance standards of 401 KAR 30:031, as noted above, is troubling, and must be restored to any package of regulations governing biosolids. If it is the intent of the Cabinet to exempt this category of land application operations from compliance with 401 KAR 30:031, the Cabinet is requested to provide affirmative consideration as to the scientific and legal justification for such an exemption.

(b) **Response:** As the commenter knows the lack of numerous citations to 401 KAR 30:031 does not release the operator from compliance with the administrative regulation. Initially, nothing in the proposed regulations amends the Necessity and Function or Applicability sections of 401 KAR 30:031, which apply it to all waste management provisions under KRS Chapter 224, and specifically to 401 KAR Chapters 31 to 49. Next, 401 KAR 45:105 Section 10 clearly states that a violation of 401 KAR 30:031 is a reason that a biosolids permit can be suspended or revoked. Also, aiding, abetting, or allowing a violation of 401 KAR 30:031 is cause for suspension or revocation of a biosolids land application permit. The Cabinet believes sufficient reference to 401 KAR 30:031 has been made and no further notification is needed. By proposing the regulation within chapters to which 401 KAR 30:031 applies and including the provisions of 401 KAR 30:031 in this section of the regulation makes it explicit that compliance with those provisions is required.

(8) **Subject Matter:** Indemnification for Claims

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

By creating a regulatory framework that allows cities to off-load their responsibility to properly manage and dispose of sewage sludges, onto unsuspecting rural landowners hungry for an inexpensive source of nutrients and kept in the dark concerning the presence of pollutants in the sludges that can harm their health, damage their soils, and contaminate their crops and livestock, the Cabinet invites the creation of a new generation of superfund sites that will require cleanup of soil and groundwater contamination, and expensive disposal of the contaminated soils, by current or future landowners.

It is fundamentally unfair to allow the shifting of responsibility from the urban communities that create the waste problems, to rural landowners who are intentionally kept ignorant of the risks associated with the land application of these wastes.

In order to incentivize the responsible management of sewage sludges that are contaminated with PFAS and other bioaccumulative and persistent wastes, a provision is needed to clearly impose ongoing responsibility on the generators of these sludges (i.e. the cities) for any environmental or public health harm caused, and for any remediation costs under state or federal law, and to indemnify and hold harmless any farmer who land applies

their sewage sludges where the composition of those sludges is such that environmental harm occurs to the public or environment.

(b) **Response:** It should first be mentioned that notification is required to be provided to the landowner of the contents of the biosolids where the biosolids may contain industrial discharges. Therefore, to claim the landowner is not required to be notified is incorrect. Also, existing regulations provide no clear direction or specific authority to require notice regarding the presence of industrial or emerging contaminants in biosolids that may be landfarmed. Alternatively, this draft regulation provides affirmative authority for the Cabinet to develop requirements to limit the land application of industrial contaminants on agricultural land.

(9) **Subject Matter:** Variance Requests

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The proposed regulation at 401 KAR 45:105 does not address which, if any, of the restrictions in the regulation are subject to a variance, and what standards would be applicable in consideration of such a variance.

(b) **Response:** 401 KAR 30:020 states:

“Except as provided in 401 KAR Chapter 38, a variance shall be a written waiver from any provision of the waste management administrative regulations, upon the finding by the cabinet that the absence of the provision shall provide adequate protection to health and the environment in a manner consistent with the purpose of the waste management administrative regulations and KRS Chapter 224.” Therefore, a permittee may request a variance for any provision of 401 KAR 45:105. The Division Director will then need to determine if the variance request meets the criteria in 401 KAR 30:020 Section before granting the variance.

(10) **Subject Matter:** Prohibition on Land Application

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

Consideration should be given to incorporation of a prohibition on land application of biosolids similar to that recently enacted in Maine. Consideration should be given also to the testing requirements recently adopted by Michigan for PFAS.

(b) **Response:** The agency drafted the proposed regulations fully understanding the potential implications of emerging contaminants and how they may exist within the biosolids/landfarming chain of management of these materials. In fact, these concerns were the primary foundation of the agency’s insistence that siting criteria and setback criteria be included in SB 213.

The challenge to address PFAS in biosolids is a difficult issue that is being debated across the nation. The agency is aware that there are specific locations in other states where the long-term application of biosolids containing emerging contaminants has been determined to be impactful to public health and the future viability of the land on which it was applied.

Biosolids are a source of special waste that will continue to be generated and the options for management of biosolids include: 1) treatment prior to land application, 2) disposal in a permitted landfill, 3) temporary or permanent management at the point of generation or at some other location controlled by the generator, and 4) land application at other locations. Presently, all of those options have to be considered and available for implementation until such time that emerging contaminants can be reduced as they are received at the wastewater treatment facility. The reduction of emerging contaminants at the wastewater treatment facility will require both regulations, technology, funding, and time before any meaningful reduction can occur.

The agency is fully aware of the potential implications of the land application of biosolids that may contain emerging contaminants. The reduction of emerging contaminants at the wastewater treatment facility will require both regulations, technology, funding, and time before any meaningful reduction can occur.

It is true that 40 CFR Part 503 provides flexibility to the implementing agency to add requirements to its programs as necessary to protect human health and the environment. In an effort to notify landowners of the potential contents of biosolids, the draft regulation requires the generator to notify the landowner that the biosolids may contain residue and contaminants from industrial discharges. Also, the draft regulation enables the director to require biosolids be analyzed for additional constituents as deemed necessary to protect human health and the environment. These requirements are in addition to what is required by 40 CFR Part 503 and SB 213.

Recently, the Science Advisory Board proposed to the United States Environmental Protection Agency that it should revisit the risk assessment that it had conducted on biosolids. It is expected that the re-evaluation of the risk assessment will be finalized in late calendar year 2024. Until such time, it would be difficult legally and perhaps technically premature to impose requirements before the science is finalized by those considered to be experts. To that end, the draft regulations seek to initiate a notification process to the landowner while maintaining the ability to land apply biosolids to those who accept them.

401 KAR 45:100

(1) Subject Matter: Remaining Land Application and Composting Requirements

(a) Comment: Todd Stephens, H & A Resources

The existing regulation for land application, 401 KAR 45:100, is an all-encompassing regulation that was intended to manage all materials that could be land applied, from biosolids, water plant residuals, food processing materials, distillery solids, et al. The shortcomings of this regulation have been apparent for some time, especially after the promulgation of the new federal biosolids regulation 40 CFR 503. This new federal regulation, and other issues, led to the creation of the new regulation for biosolids 401 KAR 45:105. Therefore, 401 KAR 45:100 is now left to regulate all non-biosolids material. The regulation is now even less appropriate than it was previously. Therefore, it would seem prudent to modify this regulation, now that it is open, to more appropriately manage the material it will be regulatorily responsible for.

(b) **Response:** The Cabinet was required to promulgate administrative regulations that complied with the provisions of SB 213 from the 2023 Legislative Session.

(2) **Subject Matter:** Registered Permit by Rule

(a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The process for conversion of existing permits is unclear with respect to facilities operating under a registered permit by rule sludge giveaway authorization. 401 KAR 45:105 Section 6(2) could be construed as applicable to RPBRs that are managing biosolids as well.

(b) **Response:** The Cabinet agrees to insert language into 401 KAR 45:105 that clarifies the sludge giveaway process is still required to operate under a registered permit-by-rule.

401 KAR 45:105

(1) **Subject Matter:** Operator Certification Requirement

(a) **Comment:** Daymond Talley, Louisville Metropolitan Sewer District

Since 2004, MSD has produced an organic-based nitrogen fertilizer called Louisville Green. Louisville Green is a Class A fertilizer pursuant to 40 CFR Part 503, Meaning it meets the U.S. EPA's stringent requirements for land application. MSD processes and distributes around 15,000 dry tons of Louisville Green annually, which saves more than 1 million cubic feet of landfill space each year.

The federal regulations found in 40 CFR Part 503, Subpart B, are not applicable to products, such as MSD's Louisville Green, However, it is not clear from the proposed language in 401 KAR 45:105 whether the same exemptions apply. Therefore, MSD would request that the regulations be amended to clarify whether 401 KAR 45:105 is applicable to products that are not subject to 40 CFR Part 503 Subpart B.

(b) **Response:** The Cabinet agrees that a biosolid material that is exempt from regulation under the provisions of 40 C.F.R. 503.10 should not be regulated by 401 KAR 45:105. Also, these exemptions are in accordance with the statutory requirement in KRS 224.50-765 which directs the Cabinet to regulate biosolids in conformance with 40 C.F.R. Part 503. An amendment has been made to 401 KAR 45:105, Section 2. However, the Cabinet will continue to require a RPBR.

(2) **Subject Matter:** Definition of "Sinkhole"

(a) **Comment:** Todd Stephens, H & A Resources

The commenter requested that the definition of "sinkhole" be expanded to create a definition of "closed sinkhole" and an "open throated sinkhole".

(b) **Response:** The Cabinet believes the definition of "sinkhole" is sufficient as drafted and does not agree that the variations on the term sinkhole are necessary.

(3) **Subject Matter:** Additional Definitions

(a) **Comment:** Todd Stephens, H & A Resources

It would seem that there should be additional definitions in this section to help clarify what many may consider confusing - such as the difference between an intermittent stream and an ephemeral stream. Additional definitions of potentially confusing terms would reduce conflict with staff and the Cabinet during the permitting process.

(b) **Response:** The Cabinet does not believe defining these terms are necessary. When not defined in the administrative regulation the term is to be understood according to the dictionary definition. The Cabinet believes these terms are not confusing and should not result in an issue with understanding the administrative regulations in 401 KAR Chapter 45.

(4) **Subject Matter:** Certified Operator Availability

(a) **Comment:** Todd Stephens, H & A Resources

Section 3 (2), states that a certified operator shall be available "at" the site. We would request that this be restated to say that the certified operator shall be available "to" the site. This would be consistent with what has been stated in every certification school that I have attended since 1989. The way the original wording is stated could be difficult for many facilities that land apply several miles offsite and the certified operator works in the office - requiring them to actually be at the site during applications.

(b) **Response:** The Cabinet agrees with this comment. It was not the Cabinet's intention to require the certified operator be at the site during application. Therefore, 401 KAR 45:105 will be amended in response to this comment.

(5) **Subject Matter:** Annual Report Submittal

(a) **Comment:** Todd Stephens, H & A Resources

Section 3(3), states that the annual report required to be submitted to EPA also be sent to the Division. This report is now completed online through the Central Data Exchange (CDX) - a paper copy is not submitted via mail nor scanned and submitted electronically. The Cabinet has access to this information. Regardless, the annual report required by the Division under this new regulation asks for everything, and more, than is required by the EPA report. Therefore, is this necessary to submit to the Division?

(b) **Response:** The Cabinet believes that the annual report requirement in Section 3(3) is necessary to accurately track and maintain records. The administrative regulation will not be amended in response to this comment.

(6) **Subject Matter:** Buffer Zones

(a) **Comment:** Todd Stephens, H & A Resources and Tom FitzGerald, Kentucky Resources Council

Section 5 (2) (b), states that the buffer zones shown in the table in Section 5 (4)(a) "shall be maintained for aquifer types in this paragraph". Subsection (b) of this section goes on to state that the buffer zones of subsection (4) must be maintained for features contained in the application site, etc. This remains confusing leading to the possibility that no buffer zones are required for certain features or aquifer types. Then in subsection (4)(a) it states that all land application facilities shall maintain the buffer zones in the table. It would

seem that all references to buffer zones in Section 5 (2)(a) and (b) should be removed to eliminate confusion and leave the statement of Section (4)(a).

(b) **Response:** The Cabinet agrees that Section 5 could be amended to increase clarity of the requirements. Subsection (2) of 401 KAR 45:105 Section 5 will be amended in response to this comment.

(7) **Subject Matter:** Application Form Modification Types

(a) **Comment:** Todd Stephens, H & A Resources

The commenter suggests changing the designation of the boxes in the "Modification Type" section of the application from "new subplots" to "new acreage", and "new waste source" to "new biosolids source".

(b) **Response:** The Cabinet agrees with this comment and will amend the form to incorporate the suggested changes.

(8) **Subject Matter:** Title Change

(a) **Comment:** Todd Stephens, H & A Resources

The commenter requested that the title of Section 5 be changed from "Waste Composition Information" to "Biosolids Composition Information".

(b) **Response:** The Cabinet will make the requested amendment to the application form.

(9) **Subject Matter:** Additional Sampling Parameters

(a) **Comment:** Todd Stephens, H & A Resources

Section 5 - In the directions for completing the table, it states that the "Director of the Division of Waste Management may require additional analytes if determined necessary to protect public health and the environment.....". Since the cabinet is directed to develop a regulation that is no more stringent than 40 CFR 503, we are unsure what potential extra parameters could be added. Also, if additional parameters are added, what criteria will be utilized to determine the acceptability, or unacceptability, of the concentrations?

(b) **Response:** 40 CFR 503.5 provides states the authority to require additional or more stringent standards.

(10) **Subject Matter:** Additional Sampling Parameters

(a) **Comment:** Todd Stephens, H & A Resources

Section 5 - A suggestion for the table would be to eliminate the columns for analytical method and detection level (both of these are required to be on the lab report that must be submitted with the attachment). Then one of the columns could be used to enter another set of sample results and the final column would be the average.

(b) **Response:** The Cabinet believes the form is designed to expedite its review of the application. The form will not be amended in response to this comment.

- (11) **Subject Matter:** Title Change for Section 6
(a) **Comment:** Todd Stephens, H & A Resources
Section 6 - Request that the title of this section be changed from "Sludge Application Information" to "Biosolids Application Information".

(b) Response: The Cabinet agrees with this comment and will make the requested change.
- (12) **Subject Matter:** 2 Year Cropping Plan
(a) **Comment:** Todd Stephens, H & A Resources
Section 6 -Attachment #12 asks for the applicant to provide a 2-year cropping plan and calculated application rates. A two-year cropping plan seems unnecessary since the second years plan will be included with the following years annual report. Also, you would be using old analytical data for the second-year calculations. You would use the next years data for calculating application rates for year 2.

(b) Response: The Cabinet understands the comment and will amend the form to incorporate this change.
- (13) **Subject Matter:** Calculated Application Rates
(a) **Comment:** Todd Stephens, H & A Resources
Section 6 -Attachment #13 asks for the applicant to supply the calculated application rates which were asked for in Attachment #12. It would seem this attachment is unnecessary.

(b) Response: The Cabinet's intention was to have the agronomic rate calculated in Attachment 12, and then an application rate would be calculated in Attachment 13 based on the metals (pollutant loading). The permittee would then use the lower of the two rates. Therefore, the Cabinet believes the information requested is not duplicative and the form is fine as currently drafted. The form will not be amended in response to this comment.
- (14) **Subject Matter:** Adjoining Landowner Information
(a) **Comment:** Todd Stephens, H & A Resources
Section 6 - Attachment #15 asks for contact information of the adjoining landowners. We do not believe this information is necessary to supply to the Division. This information has not been required in the past and would be an additional burden on the applicant.

(b) **Response:** The Cabinet's intent is to streamline the permitting process. However, in the interest of transparency the Cabinet is requiring this information to be submitted.
- (15) **Subject Matter:** Biosolid Management Information Chart
(a) **Comment:** Todd Stephens, H & A Resources
Section 2 of the Annual Biosolids Landfarming Report. The first table asking for the type of biosolids management use has the potential units in the column where the generator would insert the volume quantity. Also, in the first column the option of gallons, yards or

wet tons is offered, but only gallons in the remaining rows. The unit alternatives would be better located at the top of the chart. The attached table illustrates what we are describing.

(b) Response: The Cabinet agrees with this comment and has made the proposed amendments to the table.

(16) Subject Matter: Application Log

(a) Comment: Todd Stephens, H & A Resources

Section 6 of the Annual Biosolids Landfarming Report. The Application Log is not conducive to proper tracking of daily applications. There is no place on the form to document the time for each load. Application in dry metric tons may not be known when the material is applied since analysis results may not be back from the laboratory. Does the Cabinet want to track every load and the time of application? This could result in a lengthy form as sometime there are 50 applications in a day. Some applications could be from a continuous application such as spray irrigation or using a drag line. In these situations, volume would be based on the amount of time instead of the loads.

(b) Response: The Cabinet has amended the title of the form to clarify the application log is for daily totals.

(17) Subject Matter: Application Log for Reporting Year

(a) Comment: Todd Stephens, H & A Resources

Section 6 of the Annual Biosolids Landfarming Report. It may be better to request an attachment asking for submittal of application logs documenting biosolids application for the reporting year. Log sheets should contain at a minimum the date of application, volume and units of application, land applicator's initials or signature.

(b) Response: The Cabinet appreciates the comment made regarding the submittal of application logs. However, the proposed log in the form contains all the items mentioned in the comment except the signature. The signature is later in the form in Section 9. The form will not be amended in response to this comment.

(18) Subject Matter: Lack of Public Notice and Land Owner Notice

(a) Comment: Tom FitzGerald, Kentucky Resources Council

Also missing from 401 KAR 45:105 is any public notice or notice to adjoining landowners and farm owners whose properties might be adversely affected by the land application authorized under that regulation.

401 KAR 45:105, Section 3(5) provides that the person who prepares the biosolids is obligated to notify the persons applying the biosolids or the owner of the site that the biosolids may contain "constituents from an industrial pretreatment program." (6) requires that those notifications be given to adjoining landowners.

No indication of when that notice is required to be given, so it may be long after the neighbor can do anything about it. No public notice of application for a permit is

required, depriving nearby landowners of the opportunity to protect their lands and environmental health and quality interests where such application is proposed.

The lack of public notice in application form and in proposed regulation 401 KAR 45:105 with respect to land application of biosolids is arbitrary, capricious, and otherwise inconsistent with law. There is nothing in the nature of the MWWTPs proposed to be regulated under the new 401 KAR 45:105, that justifies any weakening of public and nearby landowner notice and opportunity to be heard on proposed land application of biosolids. The public notice issue is further addressed below.

Attachment 15 appears to require a list of adjacent property owners, but it is unclear what cabinet will do with that information. Notice should be required to be given to all first- and second-tier landowners in order to assure both that the Cabinet has all pertinent local environmental information needed to make a reasoned decision, and so that nearby landowners can avail themselves of administrative review processes in order to address any concerns relative to the proposed land application and the waste proposed to be land applied. The Cabinet should be aware that, lacking any notice of a proposed or issued permit for land application of biosolids, the administrative and judicial review mechanisms available to an aggrieved party under KRS 224.10-420 and 224.10-470 may not be triggered until after actual land application commences, thus exposing the landowner and MWWTP owner/operator, as well as the Cabinet, to challenges regarding the issuance of permits, at a much later time than would be the case under an orderly notice and comment process.

(b) Response: The Cabinet agrees that landowner notification is necessary for this program and has included additional landowner and an adjoining landowner notification in 401 KAR 45:105 as the commenter has noted. The Cabinet also agrees that notification should occur prior to land application and is the intent of the requirement in the administrative regulation. The Cabinet will amend 401 KAR 45:105 to clarify that notification to the landowner and adjoining landowner should occur prior to a biosolids application being submitted. The form DEP 4505 has also been amended to add a check box asking the applicant if the notification has been given and the date notification was made. The cabinet also agrees that a public notice process should be included in the permitting process. The Cabinet will amend 401 KAR 45:105 to include a public notice provision when the permit is finalized.

(19) Subject Matter: Lack of Standards for On-site Storage Management

(a) Comment: Tom FitzGerald, Kentucky Resources Council

Allowing indefinite storage of biosolids with no requirement for land application is an invitation to environmental runoff and nuisance problems. 401 KAR 45:105 should require that biosolids received on a site be land-applied and incorporated into the soil within two days. No open-air storage of biosolids should be allowed in order to prevent nuisance conditions and runoff from solid piles.

(b) Response: The Cabinet does not intend this regulatory action to allow indefinite storage of biosolids in a waste pile. Biosolid storage for any period of time that allows impacts to

surface or groundwaters would be inconsistent with 401 KAR 30:031 particularly as it might result in unpermitted stormwater discharges and nuisance odors. In one instance the Cabinet approved temporary onsite storage to promote the mitigation of a torn liner system at a wastewater treatment plant lagoon. Temporary storage location was inspected by the agency and best management practices were required until a permit was obtained and the material could be land applied. Attachment #9 requires the permittee to identify storage practices in the event of adverse weather. Otherwise this regulation does not envision or approve temporary storage. As stated in the above example the Cabinet may approve temporary storage where extenuating circumstances are deemed appropriate.

(20) Subject Matter: Lack of Sufficient Standards for Biosolids Application

(a) Comment: Tom FitzGerald, Kentucky Resources Council

Limiting buffer zones to 30 feet for adjoining properties, and failing to address the timing, manner, and limitations on the incorporation of the sludges into the soils, is a recipe for creation of nuisance conditions. Given that the statutory authorization for development of this program specifically protected the ability of the Cabinet to impose such siting criteria as it deemed necessary to protect public health and the environment, the Cabinet is specifically requested to provide affirmative consideration as to the basis for distinguishing between those setbacks and environmental performance standards applicable under 401 KAR Chapter 45 to non-biosolid MWWTP wastes that are land applied under a landfarming permit, and those which will be land applied under the new regulation under far lesser setbacks and siting restrictions. Lacking a basis in sound science, or in the composition or fate and transport characteristics of the new waste category, such distinctions are quintessentially arbitrary.

(b) Response: The setbacks proposed in 401 KAR 45:105 were proposed to maintain protections of human health and the environment. The Cabinet also believes, based on standard agricultural practices, that 30 feet away from adjoining landowners is sufficient to prevent migration of biosolids and any contaminants onto adjoining land.

(21) Subject Matter: Lack of Requirement for Landowner Consent

(a) Comment: Tom FitzGerald, Kentucky Resources Council

There does not appear to be any requirement for an acknowledgment based on informed consent by the landowner receiving potentially contaminated municipal sewage sludge. If the cities want to contaminate their own land by applying municipal wastewater sludges containing PFAS and other contaminants to city-owned lands of no agricultural value, that is one thing. But to allow potentially (or actually) contaminated city waste sludges to be applied to the lands of another, without requiring that the individual be informed of the composition of the sludges and the presence (or lack of testing for the presence) of potentially harmful and bioaccumulative toxins such as PFAS, is wholly inappropriate. The lack of any requirement to inform landowners about possible negative implications of accepting the sludges, particularly since those sludges will not be appropriately characterized for the full range of potential contaminants, is of significant concern. A signed, notarized statement indicating knowledge of, and acceptance of the risks associated with land application of MWWTP sludges that have been but partially

characterized and may contain contaminants of concern, should be required.

(b) Response: The proposed regulation requires the landowner to be notified if the biosolids were generated at a facility that has an industrial pretreatment program. Further, as part of the land application permit, incorporated by reference in 401 KAR 45:105, the permittee is required to acquire a Land Application Agreement with the landowner that details the location the biosolids will be applied, an agreement that the land under the agreement will receive biosolids, what is allowable uses of the land especially if the land is a Class B biosolid, cropping plans, and termination terms if the landowner or the person applying biosolids wishes to terminate the agreement.

(22) Subject Matter: 40 C.F.R. 503.5

(a) Comment: Tom FitzGerald, Kentucky Resources Council

40 CFR 503.5(b) also clearly provides that “Nothing in this part precludes a State or political subdivision thereof or interstate agency from imposing requirements for the use or disposal of sewage sludge more stringent than the requirements in this part or from imposing additional requirements for the use or disposal of sewage sludge.” Yet the agency has failed abjectly to take advantage of this clear invitation to go beyond the minimum standards as needed to protect public health and the environment.

(b) Response: The Cabinet is fully aware of the issues related to industrial sources (including per-and polyfluoroalkyl substances (PFAS)) potentially contributing to impacts to agricultural lands. 40 C. F. R 503.12 requires notification to the landowner of the “necessary information to comply with the requirements in this subpart”. 401 KAR 45:105 requires that this notification should also include a statement that the “biosolids may contain constituents from an industrial pretreatment program”. Also, this same information is to be supplied to adjoining landowners.

The Cabinet has conducted an extensive review of publicly owned treatment works (POTWs) including information regarding those POTWs that have pretreatment agreements. As part of the Cabinet’s evaluation POTWs with pretreatment agreements from facilities that have a PFAS related industry code have been identified. Based on our evaluation the majority of these facilities manage their biosolids at a municipal contained solid waste landfill. This draft regulation authorizes the Cabinet pursuant to 40 C.F.R. 503.5 to impose additional requirements related to the management and disposal of biosolids. As the Cabinet deems necessary it may take steps to mitigate the land application of biosolids from POTWs receiving PFAS related industrial discharges. In the meantime, the Cabinet expects federal rule makings and the completion of a biosolids risk assessment to clarify the framework for land application of biosolids that may contain PFAS. 401 KAR 45:105 does not reduce the notification or discovery of contamination. The Cabinet’s authority to enter and inspect or take complaints has not changed under this proposed administrative regulation. These notices apprise the landowner that their property will be receiving material that could contain contaminants from industrial sources.

(23) Subject Matter: Certified Statements

- (a) **Comment:** Tom FitzGerald, Kentucky Resources Council
40 CFR Part 503 requires various certified statements from different parties, including the generator, the preparer, and the land applier, yet the Kentucky proposed regulation does not, instead having just one certification statement for the annual report. The regulations should be revised as necessary to impose certification requirements for 40 CFR Part 503-governed biosolids consistent with those currently required by federal regulation.
- (b) **Response:** The certification statements mentioned in the comment are in 40 C.F.R. 503.17. The Cabinet referenced 40 C.F.R. 503.17 in Section 3 of 401 KAR 45:105. Therefore, the requirements in 40 C.F.R. 503.17 are required by 401 KAR 45:105. The administrative regulation will not be amended in response to this comment.
- (24) **Subject Matter:** Review Time for Permit Renewals
- (a) **Comment:** Tom FitzGerald, Kentucky Resources Council
Renewal applications for permits should be required to be submitted with sufficient lead time to allow the agency to review the application and for public notice and comment on the proposed renewal.
- (b) **Response:** The Cabinet believes that Section 6 of 401 KAR 45:105 sufficiently address this issue. Permits under the new process will be required upon renewal and will operate under the proposed timelines. The administrative regulation will not be amended in response to this comment.
- (25) **Subject Matter:** Public Practice of Geology
- (a) **Comment:** Tom FitzGerald, Kentucky Resources Council
401 KAR 45:105 Section 5 appears to allow geological determinations to be made using very limited data consisting of two maps which are not site-specific. This section could be interpreted to allow the public practice of geology pursuant to KRS 322A (as defined in KRS 322A.010) by a person who is not qualified pursuant to that statute. This section should be clarified so that the subject investigation and resulting determinations shall be performed by a qualified professional pursuant to KRS 322A.
- (b) **Response:** This draft regulation in no way authorizes unregistered individuals to participate in the public practice of geology. Section 5 of the regulation provides a generalized map of the Commonwealth that identifies basic aquifer types that are present. This map, which was developed by the Cabinet, was done so within the agency structure that included approval by a certified Kentucky registered professional geologist/s. The Cabinet does not believe that identifying a location on this map, in and of itself, constitutes the practice of geology. In this case the person locating the proposed permit on the map is relying on information that was developed by Kentucky registered professional geologist.

Historically, the determination of the depth to groundwater has been based on Soil Conservation Survey maps. The identification of a particular soil type within the boundaries of a proposed permit does not constitute the public practice of geology. The

regulation does not preclude other methods for determining the depth to groundwater that may in fact constitute the public practice of geology. It is the responsibility of the applicant and their consultants or contractors to ensure that any information provided in the application that constitutes the public practice of geology is conducted by a Kentucky registered professional geologist. In order to further reduce confusion on this topic the Cabinet will amend the title of Section 7 to remove the term “Geology”.

(26) Subject Matter: Buffer Zones

(a) Comment: Tom FitzGerald, Kentucky Resources Council

Under 401 KAR 45:100 the setback and buffer zone distances varied depending on whether the waste was surface applied or subsurface injected. The new regulation does not so differentiate. Surface application can increase the possibility of off-site odors, and of runoff affecting receptors. Setback distances should be expanded where surface application is proposed rather than immediate incorporation into soil, and strict limits should be imposed requiring incorporation of applied wastes into the soil as the rule in order to minimize off-site odor and runoff, subject to waivers where no environmental or human receptors are present within a reasonable distance.

(b) Response: The cabinet has been unable to locate the justifications for the setbacks established in the existing administrative regulations. However, the commenter’s primary concern is understood. This draft regulation includes requirements that are specifically designed to mitigate the potential for sheet flow of biosolids away from the area at which they were applied (40 C.F.R. 503.14(b), Section 5 (1), and (3)). Lastly, typical agricultural practices include incorporating biosolids into the soil. It is unlikely that reasonable farming practice would include a scenario where the fertilizer material is washed away from the area.

(27) Subject Matter: Lack of Ability to Request Additional Information

(a) Comment: Tom FitzGerald, Kentucky Resources Council

401 KAR 45:105 Section 6(1) unnecessarily handicaps the cabinet by specifying that it cannot ask for additional information not in the permit application even if necessary to protect human health and the environment. Such a limitation is inconsistent both with proper regulatory practice and is inconsistent with the governing statutes for the Cabinet. KRS 224.10-100.

(b) Response: The Cabinet disagrees with this comment. The Cabinet is directed by KRS 13A.130 to develop administrative regulations that are concise and provides the regulated community certainty in regulatory processes including permitting. Any language that is in current administrative regulations that relates to uncertainty and does provide the regulated community a clear regulatory process is volitive of KRS Chapter 13A and is reason for a finding of deficiency.

(28) Subject Matter: Closure Report is not Required

(a) Comment: Tom FitzGerald, Kentucky Resources Council

To close a land farm site under the proposed rule it appears that all a party has to do is to send a letter. Under 401 KAR 45:100, the Cabinet would have required a closure report

showing the amount of waste and metals supplied in the final months and year of operation. A closure report should be required for any land application sites subject to the new regulatory framework.

- (b) **Response:** The Cabinet understands the comment but does not agree that a closure report is necessary. The permittee is required to send annual reports and is also required to maintain information on the amount of the biosolids applied to the site indefinitely. Also, the draft regulation includes cumulative loading limits in table 2 of 40 C.F.R 503.13. These collective requirements provide sufficient information for the Cabinet so that a closure report is not necessary and a letter notification will suffice.

(29) **Subject Matter:** Perceived Regulatory Gaps

- (a) **Comment:** Tom FitzGerald, Kentucky Resources Council

The proposed amendments to the regulations in 401 KAR Chapter 45 that exempt the land application of “biosolids” from the regulations otherwise applicable to sludge landfarming operations, created a number of regulatory gaps where the new regulation at 401 KAR 45:105 has not picked up and incorporated the requirements formerly applicable to that subcategory of sewage sludges. For example, the requirement that permit applicants submit complete applications appears to have been removed. Similarly, the new subcategory of land application operations appears to have been exempted from groundwater monitoring, assessment, and remediation, as well as financial responsibility obligations that previously applied to landfarming operations. To the extent that such requirements are no longer applicable to this subcategory of sludge land application activities, the Cabinet is requested to provide specific affirmative consideration to the basis in law and science for such distinctions.

Specifically, and without limitation, the formerly applicable requirements of 401 KAR 45:160 regarding surface and groundwater monitoring appear to have been eliminated and should be reinstated in their entirety by eliminating the proposed amendment to 401 KAR 45:160. The previous application of these requirements, and the continued application of these requirements to other categories of land-applied wastes, reflect a Cabinet determination that such requirements were necessary to protect public health and the environment. To the extent that this subcategory of waste sludges is to be exempted from complying with surface and ground water monitoring, the Cabinet is requested to provide specific Affirmative Consideration of the scientific and legal justification for exempting this subcategory of wastes and their land application from such obligations. The Cabinet is also requested to square the amendment to 401 KAR 45:160 eliminating land application of biosolids from that regulation, with the text in 401 KAR 45:105 Section 8(3) providing for modification of a biosolids permit in the event that a corrective action requirement has not resulted in compliance, or to impose a corrective action plan under 401 KAR 45:160. If 401 KAR 45:160 exempts biosolids land application, it is difficult to understand how 401 KAR 45:105 Section 8 could make the regulation applicable.

- (b) **Response:** SB 213 required the Cabinet to develop administrative regulations specific to the land application of biosolids from a wastewater treatment facility. In response to SB

213 the Cabinet extricated this particular special waste stream and permitting process from where it previously existed in Chapter 45. In certain cases the Cabinet included some requirements previously in Chapter 45 in the draft regulation.

In response to the commenter's example above, the Cabinet will not approve a permit application that does not include all of the information that is required.

The existing regulation includes provisions related to groundwater monitoring and corrective action for type A facilities. In those regulations, Type A facilities include those sludges that have higher metals concentration limits when compared to type B sludges. At present the Cabinet is not aware or has received any information concerning biosolids generated at a publicly owned treatment works that meets the Type A limits. There are provisions of 401 KAR 45:160 that still apply to biosolids in regard to the need for a groundwater monitoring plan in response to corrective action. The Cabinet has amended the Necessity, Function and Conformity section of 401 KAR 45:160 to clarify that the applicable provisions of 401 KAR 45:160 still apply to biosolid permits that are under a corrective action plan.

(30) Subject Matter: Phosphorus Limits

(a) Comment: Tom FitzGerald, Kentucky Resources Council

Several other states regulate and impose land application limits on phosphorus in addition to nitrogen, and Cabinet is aware that in cases where the soil concentration of phosphorus is already at the level meeting agronomic needs, excessive application can create on and off-site problems. Testing for phosphorus in both the waste and soil should be required to assure that the land application does not overwhelm the capacity of the land to and crop uptake.

(b) Response: The Division of Water's nutrient reduction strategy addresses this comment. The strategy outlines the statewide nonpoint source strategy and in particular the Kentucky Agriculture Water Quality Act which outlines requirements, including BMPs, for certain ag operations.

401 KAR 45:140

(1) Subject Matter: Requirements for All Special Waste Permits

(a) Comment: Tom FitzGerald, Kentucky Resources Council

401 KAR 45:140 includes the general duties for any special waste permit, including the duty to apply, duty to mitigate, duty to reapply, duty to halt or reduce activity, duty to allow inspections, duty of proper maintenance and operation, and establishment of permit conditions as needed to protect health and the environment. The intent, according to the regulatory explanation, is to eliminate biosolids from this regulation, even though the actual language of the regulation doesn't do that. All of these requirements should be restored with respect to biosolids land application, or specific justification provided as to why the requirements are being removed with respect to this subcategory of wastes.

(b) Response: The Cabinet understands that it may not be obvious that some of the amendments in the proposed version of 401 KAR 45:140 impact the biosolids program.

However, the Cabinet was concerned that some of the provisions in the administrative regulation could be misconstrued to impact the biosolids program since the administrative regulation applies to “all special waste permits”. The Cabinet attempted to remove from the administrative regulations language that was overly broad and could have been interpreted to apply to the biosolids administrative regulations. Some of the language removed also was in violation of KRS 13A.130 which requires the Cabinet to provide the regulated community concise language that provides certainty in the regulatory processes.

401 KAR 45:250

(1) **Subject Matter:** Application Fees

(a) **Comment:** James D. Chaney, Kentucky League of Cities

KLC objects to the extent that the proposed administrative regulation would impose a fee on municipalities. As a basic tenet, KLC objects to one government entity imposing fees or taxes on another Kentucky government entity.

(b) **Response:** The Cabinet understands and appreciates the comment regarding charging an application fee to municipalities related to the land application of biosolids. However, the fee is currently not charged to publicly-owned facilities pursuant to 401 KAR 45:250 Section 1(2).

V. Summary of Action Taken by Promulgating Agency

The public hearing on this administrative regulation was canceled; however, written comments were received. The Department for Environmental Protection responded to the comments and amends the administrative regulations as follows:

401 KAR 45:105

Page 2

Section 2

Line 11

After "General Provisions." insert "(1)".

Line 12

After "40 C.F.R. 503.5 through 40 C.F.R. 503.9", insert the following:

(2) (a) If a biosolid material is exempt from regulation pursuant to 40 CFR 503.10 then the provisions of this administrative regulation shall not apply to the biosolid material.

(b) The exemptions established in 40 CFR 503.10 shall not exempt biosolids given way from the requirement to obtain a registered permit by rule established in 401 KAR 45:070.

Page 2

Section 3(2)

Line 16

After "sent" insert "to".

Delete "at".

Page 3

Section 3(6)

Line 7

After "application site.", insert the following:

(7) The additional notifications in subsections (5) and (6) shall be in writing and occur prior to submitting a biosolids application to the cabinet.

Page 3

Section 5(2)(a)

Line 14

After "(2)(a)", insert the following:

Applicants shall use the Kentucky Energy and Environment Cabinet Basics of Groundwater and Kentucky Aquifers document when determining their aquifer type.

Delete the following:

A minimum of four (4) feet of soil between the soil surface and the seasonal high-water table shall be maintained for land application in areas comprised of the Granular-unconsolidated and alluvial (Ohio River Alluvium) aquifers. The aquifer type determination shall be made by using the map in the Kentucky Energy and Environment Cabinet Basics of Groundwater and Kentucky Aquifers document. Buffers located in subsection (4) of this section shall be maintained for aquifer types in this paragraph.

Page 3

Section 5(2)(b)

Line 20

After “(b)”, insert the following:

A minimum of four (4) feet of soil between the soil surface and the seasonal high-water table shall be maintained for land application in areas comprised of the Granular-unconsolidated, karst, and alluvial (Ohio River Alluvium) aquifers.

Delete the following:

Buffers located in the table in subsection (4) of this section shall be maintained for land application in Areas comprised of karst, shallow fracture and deep granular-consolidated, and localized fracture and minor karst aquifer types. The aquifer type determination shall be made by using the map in the Kentucky Energy and Environment Cabinet Basics of Groundwater and Kentucky Aquifers document.

Page 7

Section 7(6)(d)

Line 11

After “permit file.” Insert the following:

(7) (a) Upon final approval of the permit application the cabinet shall post on its webpage, a public notice of permit issuance.

(b) Persons aggrieved by the final determination of the cabinet shall be afforded an opportunity to appeal the decision pursuant to KRS 224.10-420(2).

(c) Land application of biosolids under the approved permit shall not begin until thirty (30) days from the date the public notice established in paragraph (a) of this subsection.

Page 10

Section 13(1)(a)

Line 21

After “DEP 4505, (” insert “**December**”.

Delete “July”.

Page 10

Section 13(1)(b)

Line 23

After “DEP 4506, (” insert “**December**”.

Delete “July”.

401 KAR 45:160

Page 1

NECESSITY, FUNCTION, AND CONFORMITY

Line 19

After “land applied”, insert the following:

, except as it applies to biosolid permit corrective action plans

Application for a Biosolid Land Application Facility Permit, DEP 4505

Added a new question to the form. “**Have the notifications pursuant to 401 KAR 45:105 Section 3(5) and (6) been made?**” Also, a cell was added to the same row asking for the date the notification occurred.

In the Modification Type section the term “subplots” was changed to “acreage” and the term “waste” was changed to “biosolids”.

The edition date was amended in the header to reflect the new edition date of December.

Section 5 of the form, the title was changed from “Waste Composition Information” to “Biosolids Composition Information”.

Section 6 of the form, the title was changed from “Sludge Application Information” to “Biosolids Application Information”.

Section 7 of the form, the title was changed from “Geologic Site Information” to “Site Information”.

In the “General Instructions” section, Section 5, Section 6, and Section 7 titles were amended to match the changes in the body of the form.

Annual Biosolids Land Application Report

In Section 2, the table was amended in response to comments to move the units to the header of the table to remove confusion.

The edition date was amended in the header to reflect the new edition date of December.

The title of Section 6 was amended to clarify the application log is for daily totals not a log for each application of biosolids.

In the General Instructions, the title for Section 6 was amended to match the title change for the daily log.