Comments on Draft Biosolids Rule OAC 3745-40
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Prohibition of Alkaline Stabilization of Undigested Sludge

One of the chief reasons why alkaline stabilization is popular with many of our utilities its that it allows them to dedicate more of its existing tanks—many of them former digesters that are now too small—to the storage of undigested sludge to comply with the 120 day requirement for storage pursuant to this Rule. In this era of "unfunded mandates" and "doing more with less," utilities struggle every day to make ends meet, particular in this severe economic recession where layoffs, staff reductions, pay freezes/cuts, and furloughs are the norm.

OWEA shares the concern of many of our utilities over additional measures that are being proposed to restrict application of unstabilized sludge with alkaline material. While we are sympathetic to the Ohio EPA in its plight to regulate biosolids and contend with possible odor issues that may arise from field storage in some instances, we believe that further regulation will create a hardship to many utilities during these difficult economic times by finding the manpower and equipment to provide extra hauling and incorporation. For those utilities that contract out hauling and application of biosolids, this proposed modification has the potential to increase contract costs significantly.

Positive Dissolved Oxygen in Aerobic Digesters

Based on the response provided by the Ohio EPA to our original comment in October 2008, we wish to make one clarification on measurements that will ensure adequate dissolved oxygen is present in aerobic digestion.

The science of aerobic digestion is evolving where plants are practicing long intermittent cycles of aeration followed by similar long cycles of anoxic mixing. Therefore, at any given time, tank contents may have positive dissolved oxygen (DO), while other times measurable DO will be absent. Such a method of digestion provides the following benefits:

- Recruits facultative bacteria, which will reduce sludge yield and ultimately the amount of material to be managed in the field
- Saves energy, with no sacrifice in process performance
- Prevents suppression of pH due to the consumption of alkalinity with the conversion of ammonia-nitrogen, which will hinder the effectiveness of the aerobic digestion process

As a result, we would respectfully request the Ohio EPA require the regulated utility to measure, DO, pH, VS destruction, alkalinity, and ammonia-N as a family of parameters and not rely on DO alone.

Factors Impacting Design of Facilities

Based on the response provided by the Ohio EPA to our original comment, we wish to make a clarification.

The implementation, of the new Biosolids Rules will result in a continued evolution of requirements placed on regulated utilities with additional requirements that one could argue enter the sphere of "design." At the same time, the Ohio EPA upholds *Ten States Standards* as the "governing document" of design.

Ohio EPA leadership states that *Ten States Standards* are design guidelines. However, some of our members have experienced, during the review process, a more strict enforcement of the standards in lieu of a guiding document. While we appreciate the Ohio EPA's position of not wanting to address "design issues" with this Rule, we contend that the Rule is reflective of design requirements. Therefore, we respectfully request that the Ohio EPA provide clarification that information in *Ten State Standards* shall be superseded by information provided in this Rule.

Definitions 3745-40-01

(TTTT) "Unstabilized solids" means organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic digestion treatment process that reduces the organic material content in the biosolids.

Comment: This proposed definition appears to be overly conservative versus accepted alternatives in 40 CFR 503, which includes limed biosolids, providing high temperature over a specific time, heat drying, beta ray irradiation and high alkaline biosolids. We respectfully request the Ohio EPA to not adopt this proposed definition. We do not believe a "re-write" of this current rule will encourage the beneficial reuse of biosolids.

3745-40-02 Purpose, applicability, general requirements, exclusions and prohibitions

Comment: OWEA believes this set of draft rules does not encourage beneficial reuse, but rather have the opposite affect of increasing hauling to landfills.

(C) General requirement for biosolids

(a) Unless otherwise authorized by director between November 15 and March 15 of two consecutive calendar years, the beneficial use of bulk biosolids shall be accomplished by either same day incorporation or through injection.

Comment: OWEA believe this rule will result in increased disposal program costs. Often, soils in Southern Ohio remain unfrozen until mid to late December versus regions in Northern Ohio where freezing occurs earlier. The 120-day period is very restrictive. A possible option would be to allow the applier to disc the top 4-inches of soil if only the top inch is frozen (frosted) to allow applied product to enter an unfrozen zone. Would the Ohio EPA accept actual soil temperature tracking versus prohibiting land application based on possible soil temperatures?

(c) (1) Screening through a bar screen with a maximum opening of three-eight inch (0.95 cm).

Comment: The removal of inerts from biosolids is important. However, our experience has proven a half-inch screen will remove these materials. Requiring a screen no larger than three-eight inch opening is too conservative. We do not see a technical basis for this change that would provide increase benefit.

3745-40-04 Biosolids Classification

(B) Pathogen reduction alternatives, monitoring frequency requirement for pathogen reduction alternative P-1.

Comment: OWEA believe operators should not be required to monitor the fecal concentration during the monthly reporting timeframe if no biosolids have been applied. We respectfully request the Ohio EPA to only require fecal testing if product is land applied during a defined reporting period.

(C) Vector Attraction Reduction Option
(10) Vector attraction reduction immediate incorporation of biosolids.

(a) (III) Subpart

Comment: We respectfully request a science based explanation on this requirement.

3745-40-07 Requirements for the storage of biosolids: Isolation distance requirement and requirements for field and regional facility storage.

(B) Prohibitions
(2) The field storage of Class A biosolids is prohibited.

Comment: We understand the prohibition of stockpiling large amounts of Class A Biosolids , but would respectfully request an explanation on the prohibition against the field storage of Class A Biosolids. The requirements for Class A Biosolids require the material to be “pure” and have many of the same benefits as a rich organic soil.

(4) The field storage of alkaline stabilized biosolids that contain unstabilized solids is prohibited.

Comment: Based on experience by many utilities, OWEA believes lime stabilized undigested sludge is adequately stabilized to allow field storage for a period of time up to 30-days. We believe odor complaints are typically minimal and can be addressed by each applier when they occur, and in particular if biosolids are aerated to impart oxygen to the sludge and provide some volatile solids destruction prior to being treated with lime or other alkaline material.

(C) Isolation Distance Requirement and (E)

Comment: The proposed isolation distances severely limit the actual acres that will receive soil conditioning. We support the existing rule’s isolation distances and recommend the Director require more restrictive isolation limits on a case-by-case basis. Many fields are not square shaped, but many have long, narrow shapes that may be eliminated by the proposed isolation distances.

(E) The field storage of Class B on bulk exceptional quality biosolid, at any beneficial use site:

(2) Is prohibited for any biosolids treated using alkaline stabilization if the biosolids contain unstabilized solids.

Comment: OWEA believes this rule is too restrictive, and would support permitting field storage for 30-days as reasonable. This would allow utilities to manage their labor, equipment, and contracts in a more efficient manner, while being protective of the water environment.

3745-40-08 Requirements for beneficial use of biosolids: general requirements, prohibitations, isolation distance requirements, site specific requirements, and additional site restrictions for the beneficial use of Class B biosolids.

(A) General Requirements
(2) For bulk biosolids treated in an alkaline stabilized process where the biosolid contain unstabilized solids, the biosolids shall be injected or incorporated within 24-hours after delivery to the beneficial use site unless the biosolids are beneficially used at a distance equal to or greater than 1,500 feet from all occupied buildings.

Comment: The isolation distances severely limit the actual acres that will receive soil conditioning. OWEA supports the existing isolation distances and recommends the Director require more restrictive isolation limits on a case-by-case basis. Many fields are not square shaped; many have long and narrow shapes that may be eliminated by the proposed isolation distances.

(B) Prohibitions. No person shall beneficially use bulk biosolids:

(1) Subpart

Comment: While weather predictions should be relied up as one decision making tool, they are frequently wrong. We believe that applicators be afforded some judgment in the issue of when to apply. .

(6) For Class B Biosolids:(b) Subpart

Comment: The isolation distances severely limit the actual acres that will receive soil conditioning. We support the existing isolation distances and recommend the Director require more restrictive isolation limits on a case-by-case basis.

(D) (2) (A) and (B) Between March 15 and November 15 of any two consecutive calendar years

Comment:
OWEA believe this rule will result in increased disposal program costs. Often, soils in Southern Ohio remain unfrozen until mid to late December versus regions in Northern Ohio where freezing occurs earlier. The 120-day period is very restrictive. A possible option would be to allow the applier to disc the top 4-inches of soil if only the top inch is

frozen (frosted) to allow applied product to enter an unfrozen zone. Would the Ohio EPA accept actual soil temperature tracking versus prohibiting land application based on possible soil temperatures as

(6) Beneficial use sites with subsurface tile drainage. (a) For beneficial use sites with subsurface tile drainage, all field outlets shall be visually monitored before, during and after beneficial use of biosolids at the site and the results of that monitoring shall be recorded.

(E) Additional site restrictions for beneficial use of Class B biosolids. (a) The mixing of Class B biosolids from different wastewater treatment works at a beneficial use site is prohibited.

Comment: This proposed rule does not help improve fields that can benefit in different areas by receiving different types of Class B biosolids. One example is a low pH area which would benefit by receiving an alkaline biosolids application, with an adjoining area that may need more nitrogen from aerobically digested biosolids.

3745-40-09 Approved sampling methods, monitoring frequency requirements, record retention and annual reporting requirements.

(4) Dioxin monitoring requirements,
(b) (viii) If the initial sample shows results above thirty parts per trillion total toxicity equivalence, the test shall be repeated annually.

Comment: OWEA believes the dioxin trigger values are too conservative, and suggest that Ohio maintain the same standard used by USEPA. If Ohio chooses to go with a more stringent standard, we request science based justification for this.

3745-40-11 Signage requirements for beneficial use sites receiving Class B biosolids

(B) In addition to the requirements of paragraphs (A) (1) to (A) (7) of this rule, for any high potential public exposure site receiving Class B biosolids, the permitee shall have signage in place a minimum of one year after the termination of beneficial use activity at the site.

Comment: OWEA believes the term “Any high potential public exposure site” needs to be defined. We would support requiring a sign to remain posted for 30-days.