



Response to Comments

Rule(s): Sewage Sludge/Biosolids Rules, Chapter 3745-40

Agency Contact for this Package

Jacob Howdyshell
Division of Surface Water
(614) 644-2018
jacob.howdyshell@epa.state.oh.us

This document summarizes the 214 comments and questions received during the interested party review comment period, which ended October 10, 2008.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the comments are grouped by topic. The names of the commenter(s) follow the comment in parentheses.

(A) Comments without responses:

General Supportive Comments

Comment 1:

We wish to emphasize our willingness to cooperate and satisfy Ohio EPA. We are glad to see our voices are sometimes heard and hope the future holds the same. (Stephen Koch, Superintendent, City of Willard WPCP)

Comment 2:

The Compost facility originated in part from the encouragement and support of USEPA which sought an alternative to incineration of biosolids. The facility continues to provide a preferable beneficial use of biosolids. The City welcomes the opportunity to work with Ohio EPA to ensure that the program remains a viable and environmentally protective option for biosolids management. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Comment 3:

The Ohio Water Environment Association (OWEA) wishes to express its appreciation for the work done by the Ohio EPA in its efforts to protect and enhance the water environment. We have endeavored to write our comments in a positive tone with the intention of improving the value and effectiveness of the proposed Draft to the Ohio EPA and the regulated community. We would be appreciative if you would consider our comments in this spirit. (Dale Kocarek, Vice President, OWEA)

Comment 4:

Regarding biosolids specifically, Ohio Farm Bureau Federation (OFBF) Policies:

- support cooperation among applicators, Ohio EPA, municipalities and SWCDs to assure proper and safe application of biosolids
- believe that the same nutrient levels that apply in the application of agricultural nutrients to farmland should apply to biosolids application
- encourage farmers to utilize best management practices for the application and use of biosolids.

As a result of the above policies, it is clear that OFBF and our members desire consistency between and among all programs related to agricultural nutrient management. There is no justifiable reason to treat commercial fertilizer, animal byproducts and biosolids differently when utilized for agronomic benefit. As written, the proposed draft rules agree in principal with current OFBF policies. (Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

B) Comments with responses:

General Comments

Comment 5:

The current effective rules for biosolids were developed over a period of several years with multiple opportunities for public comment and input. The current rules were originally issued as draft sewage sludge rules for comment in October 2000 and again in September of 2001. Final rule approval occurred in April 2002. There are still many Ohio municipalities that have not yet received an NPDES permit implementing the 2002 rule. We are very concerned that Ohio EPA is taking the opportunity of a statutorily required five year rule review, intended to reduce the regulatory burden on cities, to propose a complete rewrite of the rules that affect so many Ohio cities and towns. The scale of the revisions includes too many changes for us to be confident that we understand the impacts, either intended or unintended, that these draft rules would have on our industry, the

cities of Ohio and the citizens they serve. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 5:

The Agency is required to review each rule in accordance with Ohio Revised Code Section 119.032, which states in part:

(C) Prior to the review date of a rule, the agency that adopted the rule shall review the rule to determine all of the following:

(1) Whether the rule should be continued without amendment, be amended, or be rescinded, taking into consideration the purpose, scope, and intent of the statute under which the rule was adopted;

(2) Whether the rule needs amendment or rescission to give more flexibility at the local level;

(3) Whether the rule needs amendment or rescission to eliminate unnecessary paperwork, or whether the rule incorporates a text or other material by reference and, if so, whether the text or other material incorporated by reference is deposited or displayed as required by section 121.74 of the Revised Code and whether the incorporation by reference meets the standards stated in sections 121.72, 121.75, and 121.76 of the Revised Code;

(4) Whether the rule duplicates, overlaps with, or conflicts with other rules.

(D) In making the review required under division (C) of this section, the agency shall consider the continued need for the rule, the nature of any complaints or comments received concerning the rule, and any relevant factors that have changed in the subject matter area affected by the rule.

These rules are being reviewed in accordance with paragraph (C) and (D) above. In addition, the Agency extended the typical thirty day public comment period to 75 days, from July 28, 2008 to October 10, 2008, to allow the general public more time to review the changes being considered. The current rule schedule is based upon a commitment to propose new rules within two years of from the effective date of the last rule filing, October 1, 2007.

Comment 6:

While the proposed rules deal with production, treatment, and land application of biosolids, it is unclear who is the responsible party to ensure that these regulations are followed, particularly in regard to those facilities who may contract with a third party for agronomic application of biosolids. (Aaron McCoy, Campbell Soup Supply Company)

Response 6:

We feel that the rules are clear in indicating that the permittee has the responsibility to ensure that the biosolids satisfy the requirements of the permit and rules, and that all third parties would be required to satisfy applicable requirements of the rules.

Comment 7:

Virginia just enacted very strict rules for biosolids applications. They did not stop the practice but they made it such that the practice should be much better for people living near the fields. This is something I suggest Ohio look into. (Kevin Czajkowski, University of Toledo)

Response 7:

Ohio EPA staff reviewed Virginia's biosolids rules as requested and incorporated changes to Ohio's rules as we deemed necessary. Although the biosolids regulating authority in Virginia recently switched hands, there have not been any new rules drafted as of yet. The currently adopted standards are the same rules that were in place before the regulatory change.

Comment 8:

Ohio has historically had a progressive program on beneficial use that was formed from a good working relationship between the EPA, the Ohio State University, and the regulated community. A major part of making this work is a consistent and constant support from the EPA for the program. This support has been returned in terms of technical and legislative support from the regulated community. With the current draft rule we have major reservations about the direction the OEPA is taking regarding Exceptional Quality Biosolids and urge the agency to carefully evaluate the very negative impacts on beneficial use from this proposed rule. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 8:

The Agency does not feel that the rules negatively impact the beneficial use of exceptional quality biosolids. Rule 3745-40-01 defines "beneficial use" as the placement of biosolids onto the land for agronomic benefit. The placement of biosolids onto the land for agronomic benefit promotes beneficial use while protecting human health and the environment. Placing of biosolids in exceedances of an agronomic rate could negatively impact human health and the environment as these exceedances could be contained in runoff or percolate in ground waters.

Comment 9:

The current collection of fees from both the generating facility and the sludge processing facility results in double dipping for sludge only facilities and generating facilities. The fee structure should be changed to encourage

regionalization and commercialization efforts by eliminating double fees. Facilities which process wastewater into reusable products such as potable quality water should not pay wastewater disposal fees. The EPA should encourage beneficial use by eliminating these fees. EPA has differentiated for EQ fees in the past and can do so for closed loop water recycling as well. The current fee structure is set up to discount the fees charged for EQ. This discount should be extended to 50% to further encourage EQ in Ohio. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 9:

The fee structure is in accordance with Ohio Revised Code Section 3745.11(Y). Ohio Administrative Code Chapter 3745-40 does not address the fee structure.

Comment 10:

The implementation of the rules in their current state will significantly impact the City of Marion financially, operationally and agriculturally. These unfunded mandates will result in expenses that will be in addition to the construction costs incurred from the Combined Sewer Overflow Long Term Control Plan. This is unacceptable without proper scientific validation. Past experience with the City of Marion's biosolids (pressure pumped/lime treated) indicates that they are extremely stable and maintain a pH above 12 until land applied. The last year of data analysis has no detect pathogens, no detect fecal coliform, no detect viruses and no detect helminth ova. The metals are labeled as a clean sludge. The City's biosolids are more sterile than most restroom facilities. The addition of more regulation will mean more expenses, restrictive access to site and possibly more land filling. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 10:

The Agency encourages beneficial use provided that it is protective of human health and the environment. All proposed changes to the rules are being considered with this in mind.

Comment 11:

I am responding to some of the restrictions being considered for application of sewage sludge. For a farmer it would be a hardship because he would be deprived of the fertilizer value of the applied sludge and would need to apply more costly commercial fertilizer. It would impact cities negatively in that they would need to dispose of the sludge at a landfill at a significant cost. The sludge loses all value with disposal at a landfill. With good management practices farmers should be allowed to continue to spread sewage sludge on agricultural land. (Received via email from JBjnewc@aol.com)

Response 11:

The Agency encourages beneficial use provided that it is protective of human health and the environment. All proposed changes to the rules are being considered with this in mind. The Agency agrees that with good management practices farmers should be allowed to continue to spread biosolids on agricultural land.

Comment 12:

The Association of Ohio Metropolitan Wastewater Agencies (AOMWA) appreciates the opportunity to comment on Ohio EPA's proposed sewage sludge rule revisions under OAC Chapter 3745-40. Both the OWEA Residual Management Committee and the City of Columbus have submitted comments letters on the draft revisions dated October 10, 2008. AOMWA supports the comments raised by each of these entities. Accordingly, please consider AOMWA to have raised the same comments and questions on the draft rules as are being raised by these entities. In addition, AOMWA would also comment that in many instances in the draft rule language, especially with respect to Ohio EPA's approach to ceiling limits, the agency is proposing to adopt requirements more stringent than required by federal law. Governor Strickland's Executive Order 1008-04S directs that federal rules should be implemented as written unless there is a compelling Ohio-specific public policy goal. We have not seen any information or support to suggest that composting practices in Ohio present unique circumstances requiring an approach more stringent than that contained in federal law. Accordingly, we would encourage Ohio EPA to adopt the federal standards instead of draft rule language that goes beyond the federal requirements. (Michael McGlinchy, President, AOMWA)

Response 12:

The federal regulations (40 CFR Part 503.5 as noted below) allow for any State to adopt more stringent rules to be protective of human health and the environment. The Agency considers these rules to be protective of human health and the environment.

40CFR§ 503.5 Additional or more stringent requirements

(a) On a case-by-case basis, 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.

(b) 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.

Comment 13:

The Draft rules appear to enter the sphere of proposing design recommendations similar to those in Ten States Standards. Therefore, we suggest that the Ohio EPA give consideration to incorporating other recommendations from Ten States Standards into these Draft rules. This will help minimize confusion to end users, by placing cogent and modern guidelines into one document. (Dale Kocarek, Vice President, OWEA)

Response 13:

These rules are based upon Federal regulations that do not address design standards. The Agency may consider adding design standards to these rules in the future.

Comment 14:

The Ohio EPA may wish to expand discussion to reflect the growing practice of adding septage and/or oil and grease to digesters. At this point in time, more and more treatment plants have added a septage receiving station. We believe that septage receiving at a POTW is environmentally superior to the traditional way of land application regulated by the Ohio Department of Health. (Dale Kocarek, Vice President, OWEA)

Response 14:

The Agency agrees that a septage receiving station at a POTW is a superior method for treating septage.

Comment 15:

As a general observation, it appears that the requirements to pursue either Class A or EQB sludge are very stringent, and so much so that there is little differentiation from requirements for Class B biosolids once it is produced. As an example, storage requirements remain the same. One could argue that there is little incentive to pursue higher quality treatment in the absence of environmental regulations. While we wish for the regulated community to be responsible stewards, we do not wish to discourage them from pursuit of sludge better than Class B quality. (Dale Kocarek, Vice President, OWEA)

Response 15:

The incentives for exceptional quality biosolids include less stringent isolation distances, the ability to bag, sell, and market, and a reduction in the annual sewage sludge fee. The storage requirement is considered necessary for those times when biosolids of any classification can not be land applied. In addition, the storage requirements for EQ biosolids are less stringent than for Class B biosolids.

Definitions – OAC Rule 3745-40-01

Comment 16:

3745-40-01- The existing rules contain definitions of terms that are no longer defined in the draft rules. This may be because the terms are no longer used in the draft rules. However, terms such as “Class I sludge management facility,” “dry weight basis,” and “representative sample” seem to be relevant in the draft rules and are also defined in part 503. (John Colletti, USEPA Region 5)

Response 16:

Class I sludge management facility is not utilized within Chapter 3745-40 as all facilities are required to submit the same information. “Dry weight basis” and “representative sample” are utilized within Chapter 3745-40 and will be defined.

Comment 17:

3745-40-01- There are no definitions for “frozen ground”. It is recommended that OEPA include specific definitions so the criteria for determination of frozen ground is clear. (OWEA Residuals Management Committee)

Response 17:

A definition for “frozen ground” was not included in rule because the practicality of enforcing such a definition would be very difficult. The Agency proposes to leave the rule as is.

Comment 18:

3745-40-01- We did not locate a definition for “frozen and snow covered ground.” We suggest that these terms be included for the purpose of clarity. (Dale Kocarek, Vice President, OWEA)

Response 18:

A definition for “frozen and snow covered ground” was not included in rule because the practicality of enforcing such a definition would be very difficult. The Agency proposes to leave the rule as is.

Comment 19:

3745-40-01- It appears the terms are meant to be in alphabetical order. Terms (YY), (ZZ), and (AAA) are not in the correct order. (John Colletti, USEPA Region 5)

Response 19:

The Agency will revise the proposed rule to alphabetize the order of defined terms.

Comment 20:

3745-40-01(C) - Why isn't "agronomic benefit" defined in the draft rule? (OWEA Residuals Management Committee)

Response 20:

When a term is defined within Ohio Revised Code, the Agency has chosen not to define it in rule to ensure the integrity of the definition. Whenever a term is defined in two or more places there is a chance that the definitions may differ, which may cause confusion to the general public.

The rule will be revised to include a comment that reflects the actual definition in 6111.01. The comment will not be an enforceable part of the rule.

Comment 21:

3745-40-01(C) - We suggest that the term "agronomic" be defined in the draft rule. (Dale Kocarek, Vice President, OWEA)

Response 21:

The terms "agronomic benefit" and "agronomic rate" have been defined within OAC Rule 3745-40-01. Based on the Agency's research, providing a definition for agronomic would not be helpful within the rule, and would require adding additional definitions.

Comment 22:

3745-40-01(D) - The definition of agronomic rate is significantly more stringent than the definition used in the federal 40 CFR part 503 and we believe that the draft definition could be problematic. The definition as written could replace agronomic rates of nitrogen for realistic crop yields with an amount incapable of producing the desired crop. It would be senseless for a farmer to lower crop yields and increase the amount of acres disturbed to grow the same amount. The definition should be changed to match the federal definition, that is:

"Agronomic rate" means the whole biosolids application rate (dry weight basis) intended to provide the food crop, feed crop, fiber crop, cover crop, pasture, or vegetation the appropriate nitrogen for the reasonably expected yield, and to minimize the amount of nitrogen in the biosolids that passes below the root zone of the crop or vegetation grown on the land to the ground water.

(Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 22:

The rule will be revised as requested.

Comment 23:

3745-40-01(D) - The definition as written should be modified to base the application rate of biosolids on the nutrient requirements of the crops being

grown. The most limiting crop nutrient should serve as the basis for determining the application rate thereby reducing the risk of nutrients being transported to waters of the state. (Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

Response 23:

The rules will be revised as requested in Comment 172.

Comment 24:

3745-40-01(l) - Difference in language used in definition of “beneficial use” and “land application”. One uses “placement” and the other uses “spraying or spreading”. (OWEA Residuals Management Committee)

Response 24:

To provide for clarification, the definition of “land application” will be removed and the definition of beneficial use will be revised, as follows:

“Beneficial use” means “the placement of biosolids onto the land through the spraying or spreading of biosolids onto the land surface, the injection of biosolids below the land surface, or the incorporation of biosolids into the soil for the purpose of providing an agronomic benefit.”

Comment 25:

3745-40-01(l) - We question the use of the word “placement” in this definition. The previous language used the terms “spraying or spreading” in the definition of “land application”. The term “placement” is a broader term and has been interpreted in the current Ohio rules to mean any sewage sludge or biosolids put on the ground including the staging, stockpiling or field storage. It is not clear throughout the rule why the terms “land application” versus “beneficial use” are used. In addition the variations of “land apply” and “beneficially use” are also used quite frequently throughout the rule without being officially defined or differentiated. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 25:

To provide for clarification, the definition of “land application” will be removed and the definition of beneficial use will be revised, as follows:

“Beneficial use” means “the placement of biosolids onto the land through the spraying or spreading of biosolids onto the land surface, the injection of biosolids below the land surface, or the incorporation of biosolids into the soil for the purpose of providing an agronomic benefit.”

Comment 26:

3745-40-01(K)- Regulating exceptional quality biosolids to this degree takes away the incentive to go to the level of expense processing equipment, laboratory testing, and managerial oversight to produce EQ product. Fifty cubic yards is less than a semi-load of material, meaning that there is a requirement to document even this small quantity of material. How is this going to be enforced? A more realistic quantity to regulate is 2,000 cubic yards/year. At >2,000 cubic yards/year you will be into the significant consumers of EQ biosolids. Remember, EQ is sold. It has value. The customer will not waste a valuable product. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 26:

After considering your proposal, the Agency proposes to revise the definition of "bulk biosolids" to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 27:

3745-40-01(K)- Regulating exceptional quality biosolids to this degree takes away the incentive to go to the level of expense processing equipment, laboratory testing, and managerial oversight to produce EQ product. Fifty cubic yards is less than a semi-load of material, meaning that there is a requirement to document even this small quantity of material. How is this going to be enforced? The biosolids section has two full time employees, but has received money for six employees for five years. The EQ products are sold and have value: The replacement fertilizer has just about doubled in the last few years. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 27:

After considering your proposal, the Agency proposes to revise the definition of "bulk biosolids" to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 28:

3745-40-01(K) - Many landscape and athletic field projects will use more than 20 times as much EQB. Under the current wording, generators would be required to comply with management practices anytime a semi trailer load of exceptional quality biosolids (EQB) was sold (distributed). Agricultural applications would use much more because the fields may be 20 acres or more. It is recommended that OEPA consider raising the bulk biosolids definition to a much higher limit. (OWEA Residuals Management Committee)

Response 28:

After considering your proposal, the Agency proposes to revise the definition of "bulk biosolids" to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 29:

3745-40-01(K)- The proposed revisions to the definition of "bulk biosolids" in draft Biosolids rule 3745-40-01(K) would undermine part of the original intent of the Federal 503 sludge regulations to actively promote the beneficial uses of sewage sludge, by imposing unnecessary administrative burdens on Exceptional Quality (EQ) bulk biosolids producers in Ohio. The draft rule would apply additional sludge management requirements on EQ bulk biosolids that are not otherwise required by federal law. The revised definition would be particularly burdensome for producers of compost, which is typically sold in bulk to commercial growers that use it as a relatively small proportion of a final product that may be subdivided into numerous smaller containers. The 503 sludge regulations provide four options for meeting pollutant limits and pathogen and vector attraction reduction operational standards-each of which is equally protective of public health and the environment. The draft rules would subject the EQ "bulk biosolids" option to general requirements and management practices not currently required. Thus, the EQ biosolids option would be held to a higher standard, despite the fact that the additional requirements and management practices provide no additional value. The draft rules create a disincentive to compost production, essentially marginalizing the EQ biosolids option as it applies to "bulk" distribution. The effect will be to reduce the market for biosolids since additional restrictions and required management practices limit sales. Soil blenders, nurseries, and commercial landscapers could be expected to switch to materials other than biosolids that subject them to fewer restrictions, thereby reducing demand for composted biosolids. The likely end result is that sludge

that would have been composted and beneficially reused will instead be disposed by landfilling or incineration. The Agency proposes to define a "bulk biosolids" among other definitions, as a quantity "greater than fifty cubic yards of exceptional cake biosolids" [3745-40-01(K)(2)]. It is unclear whether this is 50 cubic yards/truckload or 50 cubic yards/job site or customer. Does OEPA envision a reduction in environmental risk by encouraging the use of smaller trucks? Use of smaller trucks would increase energy use and increase carbon footprint-certainly not an environmentally sustainable result. The City believes that 50 cubic yards is too small a quantity in practical terms to implement desirable biosolids management practices. To comply with the new standard, every tractor-trailer leaving a facility (typically holding 100 cubic yards) must be managed as a separate land application project. This result would increase the complexity of management and discourage sales of Comtil to landscape companies. The City has no practical means to impose bulk biosolids management practices on landscape and topsoil dealers purchasing ComTil mulch. A preferable and more reasonable threshold for exceptional quality cake biosolids would be 2,000 cubic yards per site. This quantity would be sufficient to allow for large landscaping/nursery/athletic field projects without neglecting distribution to agriculture land when large quantities of biosolids exceed the market for landscape materials. Typical agricultural application on a 50 acre field would be about 10 dry tons/acre or approximately 1,800 cubic yards. Concerns have been raised when biosolids are applied at high application rates over large areas without any limits on the generator or applicator under EQ biosolids standards. Setting the standard at 2,000 cubic yards would allow responsible use on agricultural land and would allow responsible use as an organic amendment for landscape projects without imposing unnecessary regulation on high quality products. A reclamation rate on a 50 acre site would require application of 11,800 cubic yards at 65 dt/acre. There is a clear difference in scale between landscape, bulk agricultural, and reclamation sites. Any customer that pays for EQ biosolids and absorbs the cost of transportation and application will maximize the beneficial use of the product and minimize losses to the environment. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Response 29:

After considering your proposal, the Agency proposes to revise the definition of "bulk biosolids" to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 30:

3745-40-01(N)- DDAGW recommends the definition for community public water system be removed from the rule and be replaced with the following, which will encompass the definition for all three types of public water system:

“Public water system” has the same meaning as found in Ohio Administrative Code 3754-81-01. (Ohio EPA DDAGW)

Response 30:

The rule will be revised, as requested.

Comment 31:

3745-40-01(BB) - The definition of “facility storage” discusses storage and the permittee’s treatment works. We suggest this definition be amended to also allow storage “at an approved location not necessarily contiguous to the treatment works”. This change would allow storage away from the actual treatment works location at property under ownership or control of the permittee. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 31:

The current rule includes a definition and requirements for a “regional storage facility”, which addresses this issue.

Comment 32:

3745-40-01(EE) - The definition of field storage references an “authorized site”. This term is not defined in this draft. The term as defined would also apply to the transfer of liquid biosolids from a truck to an applicator or to a staging area for transfer of cake biosolids. Why is there a restriction of 90 days on the field storage of biosolids? How, in and of itself, is this restriction protective of human health and the environment? Field storage should be allowed until such time as the land application or beneficial use of the biosolids on the land application site can be completed without negative impacts on the farm operation. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 32:

The rule will be revised to include the following definitions:

“Authorized Site” means an area of land that has been authorized by Ohio EPA to receive Class B biosolids.

“Field Storage Area” means:

- (1) An area of land at a beneficial use site where bulk biosolids are transferred to an application vehicle for beneficial use; or

- (2) An area of land at a beneficial use site where bulk biosolids are to be stored for a time period not to exceed ninety days.

The restriction of 90 days of field storage is necessary to protect human health and the environment. The longer biosolids are stockpiled at a field storage area the greater the likelihood that malodor will arise, impacts to groundwater and surface water may increase through leaching and runoff from the stockpiled biosolids, as well as possible transmission of viable, disease-causing bacteria, viruses or parasites in surface runoff (see USEPA Guide To Field Storage of Biosolids and Other Organic By-Products Used in Agriculture and for Soil Resource Management.)

Comment 33:

3745-40-01(GG) - Again this references the term “authorized land application site” that is not defined in this rule but was defined in the previous rule. This definition requires the land application site to be authorized before it can be defined as “frequently flooded.” (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 33:

Ohio EPA will remove “authorized land application site” from the definition of frequently flooded.

The new definition for frequently flooded shall read as follows:

“Frequently flooded” means an area of land that has flooded on average more than once every two years. Frequently flooded and the months when flooding is expected shall be determined by consulting the appropriate “National Cooperative Soil Survey” publication, which is available at the following website: <http://soils.usda.gov/partnerships/ncss/>.

Comment 34:

3745-40-01(KK) - The use of this definition and its subsequent use in the rule adds a layer of confusion. Why is this vague definition necessary and is it necessary to limit the time frame to 30 days? (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 34:

This definition and subsequent requirement in OAC 3745-40-09 have been added to rule to ensure that human health and the environment are protected. If a hauling event is to exceed thirty days, then another round of sampling should be completed to ensure that pathogen reduction and vector attraction reduction has still been met.

Comment 35:

3745-40-01(LL) - This definition is worded differently than the current rule for no apparent reason. This language should match the language in the existing rule that matches the language from the 40 CFR 503 rule. The language as written is quite vague since neither “agricultural land” or “land reclamation sites” are defined in the rule. We suggest that the definition be changed to:

“Land with a high potential for public exposure” is land that the public uses frequently.

This includes, but is not limited to, a public contact site, and a reclamation site located in a populated area (e.g. a construction site located in a city). Additionally the definition of a “Public contact site” is land with a high potential for contact by the public. This includes but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms and golf courses. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 35:

Ohio EPA will revise the rule as suggested.

Comment 36:

3745-40-01(OO) - Part 503 defines “incorporation” as sewage sludge applied to the land surface that is incorporated into the soil within six hours after application or as specified by the permitting authority. The draft rules define incorporation two ways, one with a 6 hour timeframe and one with a 24 hour timeframe. Ohio EPA should ensure that the 24 hour timeframe for incorporation will be protective of public health and the environment. (John Colletti, USEPA Region 5)

Response 36:

The 24 hour timeframe is for use in areas where runoff may be a concern. However, if the treatment plant is relying on meeting vector attraction reduction through VAR-10, they are still limited to incorporation within six hours, which is a requirement to protect human health and the environment.

Comment 37:

3745-40-01(OO) - How does OEPA interpret the minimum depth of four inches for incorporation? Would a tillage depth >4” meet the draft rule? Alternately, does OEPA interpret draft rule to require biosolids to be “under” 4” of soil. Tillage to a depth of 4” should be adequate to cover 95% of all biosolids spread. NRCS has identified problems with injected liquid manure passing through macro-pores into field tile. NRCS prefers surface application or mixing of soil with manure to disrupt the channels. (OWEA Residuals Management Committee)

Response 37:

Ohio EPA interprets this definition to mean that the biosolids have been mixed into the soil to at least a depth of 4 inches. A tillage depth >4" would meet the requirements of this rule. This does not mean that the biosolids have to be buried underneath 4 inches of soil.

Comment 38:

3745-40-01(OO) - We are curious in a better understanding on how the Agency interprets the minimum depth of four inches for incorporation. Please clarify. (Dale Kocarek, Vice President, OWEA)

Response 38:

Ohio EPA interprets this definition to mean that the biosolids have been mixed into the soil to at least a depth of 4 inches. A tillage depth >4" would meet the requirements of this rule. This does not mean that the biosolids have to be buried underneath 4 inches of soil.

Comment 39:

3745-40-01(OO) - I know of no other rule that tries to define the term incorporation, the Ohio CAFO rule does not itself define incorporation. Because of the lack of experience with a definition such as this I am concerned with the unintended effects of this definition. Who will determine that the soil "significantly reduces exposure to the biosolids." (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 39:

Ohio EPA feels that a clarification of the term "incorporation" is necessary to protect human health and the environment. Ohio EPA will remove "in order to ensure the soil significantly reduces exposure to the biosolids" from the definition of "incorporation."

Comment 40:

3745-40-01(QQ) - A clearer definition should be provided, especially as it relates to prohibition of land application of inerts. Inert suspended solids are part of any biosolids product and should not be excluded. We understand and agree that inerts in the form of trash and plastics are not acceptable components of land applied biosolids. ***"Manufactured inerts"*** means wastes such as plastic, metals, ceramics and other manufactured items that remain relatively unchanged during wastewater or biosolids treatment processes. (OWEA Residuals Management Committee)

Response 40:

Ohio EPA will make the change to this definition as suggested.

Comment 41:

3745-40-01(QQ) - We were not clear what level of control is being advocated for inert materials. Please clarify. (Dale Kocarek, Vice President, OWEA)

Response 41:

Please refer to Comment 40 and Response 40. Ohio EPA feels that this revised definition will further clarify the level of control to be used.

Comment 42:

3745-40-01(RR) - How does OEPA interpret "to a minimum depth of 4" for injection. Does this mean that soil covering biosolids will not be less than 4"; or the injection to a shovel depth of 4" will provide sufficient soil cover? (OWEA Residuals Management Committee)

Response 42:

Ohio EPA interprets this definition to mean that the biosolids have been injected into the soil at a minimum depth of 4 inches. This means that the injectors must be set at a level that will ensure that all biosolids are discharged from the injectors at a depth of at least 4 inches.

Comment 43:

3745-40-01(UU) - Karst features may be formed in any readily dissolved bedrock. Dolomite is a commonly occurring carbonate bedrock in Ohio and the karst areas in Seneca and Sandusky Counties is formed, in part, by dissolution of gypsum deposits underlying the carbonate bedrock. DDAGW recommends the definition be modified to read:

"Karst area" means an area of irregular limestone, dolomite or gypsum in which erosion has produced geological features that may provide direct conduits to groundwater, including fissures, sinkholes, underground streams and caverns. (Ohio EPA DDAGW)

Response 43:

Ohio EPA will make the changes to this definition as suggested, except it will be changed to say "Probable karst area." The Ohio Department of Natural Resources has released a map of probable karst areas that Ohio EPA will reference for enforcement of this requirement. This map may be accessed at the following web address: <http://www.dnr.state.oh.us/Portals/10/pdf/karstmap.pdf>.

Comment 44:

3745-40-01(ZZ) - Landfill is used when the draft rule defines "sanitary landfill". (OWEA Residuals Management Committee)

Response 44:

Ohio EPA will use landfill throughout the rules.

Comment 45:

3745-40-01(MMM) - The draft definition is copied from the federal 503 rule. If Ohio EPA uses the draft definition then it would need to make available to the public a copy of "information available to the administrator of the United States environmental protection agency" in accordance with ORC 121.72. This definition does not have a plain meaning and unnecessarily confuses the reading of the rule and the ability of the regulated community to understand and comply with this chapter. The Ohio EPA guidelines and previous drafts of rules used the term "metals" to show the metals concentration limits. We suggest that this is a more readily understandable term. The appropriate definition for the term "pollutant" to be included in this chapter would be the same as that used in chapter 3745-33 of the administrative code. That is: OAC 3745- 33-01 (AA) "Pollutant" means sewage, industrial waste or other waste as defined by divisions (B) to (D) of section 6111.01 of the Revised Code. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 45:

The rules, as drafted, match the federal 503 rules. Previously adopted rules also used the term pollutant when referring to metal concentrations in biosolids. Information available to the administrator of the United States environmental protection agency may be requested from the United States environmental protection agency.

Comment 46:

3745-40-01(PPP) - The draft rules reference (MM). We believe the correct reference should be (OO). (John Colletti, USEPA Region 5)

Response 46:

Ohio EPA will make this change as suggested.

Comment 47:

3745-40-01(SSS) - Why isn't sewage sludge defined in the draft rule since it is central to the discussion? (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 47:

When a term is defined within Ohio Revised Code, the Agency has chosen not to define it in rule to ensure the integrity of the definition. Whenever a term is defined in two or more places there is a chance that the definitions may differ, which may cause confusion to the general public.

The rule will be revised to include a comment that reflects the actual definition in Ohio Revised Code Section 6111.01. The comment will not be an enforceable part of the rule.

Comment 48:

3745-40-01(SSS)- The definition of “Sewage sludge” refers us to ORC 6111.01 that in turn refers us to ORC 3745.11 that in turn refers us back to ORC 6111.01 for a definition of the term “treatment works” used in the definition. I think it is reasonable to ask that this chapter provide a definition of what it is regulating. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 48:

When a term is defined within Ohio Revised Code, the Agency has chosen not to define it in rule to ensure the integrity of the definition. Whenever a term is defined in two or more places there is a chance that the definitions may differ, which may cause confusion to the general public.

The rule will be revised to include a comment that reflects the actual definition in Ohio Revised Code Section 6111.01. The comment will not be an enforceable part of the rule.

Purpose, Applicability, Prohibitions, Exclusions – OAC Rule 3745-40-02

Comment 49:

3745-40-02- Part 503 excludes from coverage sewage sludge co-fired in an incinerator with other wastes or for the incinerator. Section (D) does not include this exclusion. Since the other draft rules do not cover co-firing, the exclusion should be included. (John Colletti, USEPA Region 5)

Response 49:

Ohio EPA will make the change as suggested.

Comment 50:

3745-40-02(A) - The language in the current rule, “reasonably protect public health and the environment, encourage the beneficial reuse of sewage sludge, and minimize the creation of nuisance odors,” was removed from the Purpose Statement for this rule when it should stay in the rule. (OWEA Residuals Management Committee)

Response 50:

Ohio EPA will make this change as requested.

Comment 51:

3745-40-02(A) - If the purpose of these rules is to establish standards applicable to the disposal of sewage sludge or biosolids, why do the disposal requirements only reference rules adopted under Chapter 3734 of the Ohio Revised Code? The revised language removes the language of the effective rule that the

standards are intended to “reasonably protect public health and the environment, encourage the beneficial reuse of sewage sludge, and minimize the creation of nuisance odors.” It also removes that the standards “shall be consistent with section 405 of the federal “Water Pollution Control Act” and regulations adopted under it. We suggest that the intent of this chapter as outlined by the Ohio Revised Code is an inextricable part of the purpose of this chapter. This change appears to conflict with the original legislative intent of the rule making. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 51:

Ohio EPA will make the change as suggested.

Comment 52:

3745-40-02(B)(2)(b) - Throughout the rule varying language is used to denote the standard for protection of public health and the environment. For example in this part of the rule a standard may be waived if it “will not adversely affect the public health or the environment.” (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 52:

Ohio EPA will keep this in mind in future drafts of the rules.

Comment 53:

3745-40-02(C)(1) - “Discharge” statement is misleading relative to land application rules. We agree that all wastewater treatment plants require an NPDES permit and that the NPDES permit also encompasses biosolids management, but question the reference in these rules as it relates to land application. (OWEA Residuals Management Committee)

Response 53:

See Comment 54 and Response 54 for a clarification of this requirement.

Comment 54:

3745-40-02(C)(1) - This is new language in the rule and contains several undefined terms. For example what is considered an “effective Ohio NPDES permit”? The term “discharge” is not defined in this rule and should be defined so that this rule language is not amplified beyond the intent of the Ohio Water Pollution Control Act. OAC 3745-33-01 defines “discharge” as “ discharge means discharge of any pollutant or pollutants from any point source.” Ohio NPDES permit is also undefined in this rule. OAC 3745-33-01 defines “Ohio NPDES permit” as "Ohio NPDES permit" means a permit issued by the state of Ohio for a discharge which is either in compliance with authorized discharge levels or which includes a schedule which will bring the point source into compliance with authorized discharge levels. If left unchanged it would impose point source

requirements to large tracts of agricultural fields that cannot capture precipitation.
(Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 54:

Ohio EPA will add the definition for “discharge” and will remove the term “Ohio” from this general requirement to clarify.

Comment 55:

3745-40-02(C)(2)(b) - The term “sanitary landfill” is not defined. This should be defined as a “sanitary landfill facility” as defined in OAC 3745-27-01 (S) (4). The rule language in this section is circular and references Chapter OAC 3745-40 of the Administrative Code; throughout the Chapter OAC 3745-40 is referred to as “this chapter.” The references should be consistent throughout the chapter. (Bruce MacLeod, Synagro Central, LLC/OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 55:

Ohio EPA will change all references from “sanitary landfill” to “landfill.”

Comment 56:

3745-40-02(C)(2)(c) - This rule section also introduces new undefined terms. What is meant by the term “valid NPDES permit”? (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 56:

Valid means that it has been approved and issued final by the Ohio EPA. This will be clarified in rule.

Comment 57:

3745-40-02(C)(3)(f) - Definition of exceptional quality in this paragraph references to 3745-40-01, the rule 3745-40-01 definition references rule 3745-40-04. This should be a direct reference to the definition. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 57:

Ohio EPA will change the reference to 3745-40-04 to facilitate ease of reading.

Comment 58:

3745-40-02(D)(4)(a) - The PCB number is too high and in conflict with other OEPA programs. OEPA should put a number in place that is lower than that of 40 CFR 503. Per OAC 3745-27-46, Table 2, yard waste compost rules, the limit for PCB is 1 ppm. Neighboring states have similar PCB limits. DSW should discuss with DSIWM (for all their programs, e.g., VAP) their basis for this limit.

Test methodology should be clearly defined since there are many isomers of PCB. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 58:

Ohio EPA agrees. We will make the changes as suggested.

Comment 59:

3745-40-02(D)(4)(a)- The PCB numbers are not defined well since there are many isomers of PCB. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 59:

See Comment 58 and Response 58.

Comment 60:

3745-40-02(D)(5)(a) - I am concerned about the definition of sewage sludge and industrial sludge. The way that the rules are written I believe that any amount small of sewage mixed with a large amount of industrial sludge would now make it all Sewage sludge. This will complicate and cost many companies a lot of money to remove the sewage lines from their mains, if it is even possible, to change these lines. Also, companies that take industrial sludge from one of these companies, now Sewage sludge, will have their status changed to sewage sludge also. This rule change may put companies at risk of losing their hauler due to the change. There are a lot of unintended consequences to a simple definition change. (Ryan Evers, Mike's Sanitation)

Response 60:

The rules will be revised to correlate with 40 CFR Part 503. Industrial sludge will not be regulated under this Chapter.

Comment 61:

3745-40-02(D)(5)(a) - Excludes sludge that is generated at an industrial facility during treatment of industrial wastewater without sewage or sewage sludge present. Does that mean that if sewage or sewage sludge is present during treatment of industrial wastewater, the sludge generated is covered by Chapter 3745-40? Part 503 excludes this type of sludge from coverage. (John Colletti, USEPA Region 5)

Response 61:

The rules will be revised to correlate with 40 CFR Part 503. Industrial sludge will not be regulated under this Chapter.

Comment 62:

3745-40-02(D)(6) - Many treatment plants have added a septage receiving station which may also receive grease trap waste. Why these products would be excluded when this is a much better method to stabilize, meet standards and land apply. This shouldn't be preferred over straight land application since Health Department Rules are way to loose. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 62:

These rules do not establish requirements for the individual uses of these materials. These rules do not prohibit adding septage receiving stations at treatment plants; they just do not address these situations.

Comment 63:

3745-40-02(D)(6) - You may also want to include commercial and industrial septage to be consistent with part 503. (John Colletti, USEPA Region 5)

Response 63:

Ohio EPA will make the change as suggested.

Comment 64:

3745-40-02(E)(2) - Makes reference to 3745-40-08 (D) (1) when it should be (D) (2). (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA/Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

Response 64:

Ohio EPA will make the change as suggested.

Comment 65:

3745-40-02(E)(2) - Prohibits "land application" but doesn't prohibit "beneficial use". Is this intended exception or complication of similar definitions? (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 65:

Ohio EPA will remove this prohibition.

Comment 66:

3745-40-02(E)(2) - We don't understand the use of this language here, the prohibition on the beneficial use and land application of biosolids on frozen and snow covered ground is also included in rule 3745-40-08. We suggest that for ease of understanding that all of the rule language pertaining to this issue be contained in one rule. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 66:

Ohio EPA will remove this prohibition.

Comment 67:

3745-40-02(E)(3) - The general prohibition on "inert material" should be amended to better define inert material for this rule. With common treatment system screening and grinding devices, biosolids that are land applied should not contain gross inert materials (plastics) that do not readily decay. I suggest the agency consider amending this rule and possibly handle complaints of gross inert materials in land applied biosolids on a case-by-case basis. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 67:

Ohio EPA will change the definition of inert material as suggested in Comment 40 and will provide further clarification in this rule as suggested by Comment 69.

Comment 68:

3745-40-02(E)(3) - Prohibits inerts in biosolids beneficially used. Our understanding is that this rule is attempting to control the incidence of non biodegradable trash in biosolids intended for beneficial reuse. We support this effort and suggest the following rule language for consideration:

3745-40-02(E)(3)

All biosolids must be treated by a process such as physical screening or another method to significantly remove manufactured inerts prior to final disposition. Meeting this requirement may occur at any point in the wastewater treatment or biosolids manufacturing process. Meeting this requirement can be accomplished by either of the following:

(a) Screening through a bar screen with a maximum aperture of 3/8 inch (0.95 cm).

(b) Obtaining approval from the director for an alternative method that achieves a removal rate similar to or greater than that achieved by the screening standard in this paragraph.

The requirement in this paragraph must be met by July 1, 2012, or at the time of final disposition if the material will not be managed prior to July 1, 2012. Regardless of the date that the requirement in this chapter is met, biosolids that are beneficially used must contain less than 1 percent by volume recognizable manufactured inerts. (OWEA Residuals Management Committee/Bruce MacLeod, Synagro Central, LLC)

Response 68:

Ohio EPA will make this change as suggested.

Comment 69:

3745-40-02(E)(3) - Biosolids will contain some inert material, so where should the line be drawn on the type, dimensions, and quantities? (Dale Kocarek, Vice President, OWEA)

Response 69:

Ohio EPA will propose to adopt the language as suggested in Comment 69.

NPDES Permit, Management Plan Requirements – OAC Rule 3745-40-03

Comment 70:

3745-40-03(A)(3)(a-e) - The State is attempting to manage individual systems which will make the land application programs too expensive and restrictive for smaller utilities and farmers. These actions therefore do not promote the recycling of biosolids. This has already occurred with EPA representatives shutting down an operation after two (2) odor complaints in a twenty day period. Relatively insignificant odor was detected and it was promptly addressed with a small quantity of deodorizer. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 70:

The currently adopted rules contain a provision that allows the director to include requirements in individual permits to protect public health and the environment. This provision does not establish any specific requirements for communities, it only gives the director the authority to establish specific requirements if necessary.

Comment 71:

3745-40-03(A)(3) - The word “reasonably” should be inserted so that the wording matches the enabling legislative language. The Ohio legislature did not intend that the Director of Ohio EPA should implement rules without consideration of the technical feasibility and economic reasonableness of complying with those rules and to evidence relating to conditions calculated to result from compliance with those rules, and their relation to benefits to the people of the state to be derived from such compliance. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 71:

Ohio EPA will make this change as suggested.

Comment 72:

3745-40-03(B)(1) - This paragraph references (D)(2) of rule 3745-40-07, there is no such paragraph. If this is meant to reference paragraph (E)(2) of 3745-40-07

then it becomes a circular reference because paragraph (E)(2) refers back to (B)(1) of 3745-40-03. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 72:

The reference in the current draft set of rules is correct. The requirements for land reclamation are all applicable but they do not all fit within a single rule. Therefore, it is necessary to reference all rules applicable to land reclamation so that the reader is aware of all applicable requirements.

Comment 73:

3745-40-03(B)(3) - This requirement is unclear. Ohio EPA has exclusive authority for regulation of biosolids in the state of Ohio. The Ohio EPA should not be placing language in the OAC that references an entity or program that itself does not have an OAC administrative definition. Referencing a plan that is approved by another agency as a rule requirement under the Ohio EPA's rules ensures bureaucratic gridlock and conflict in the administration of these rules. The enabling legislation clearly intended for the Ohio EPA to regulate sewage sludge and biosolids and not to pass the regulation off to another state agency. It is unclear that the applicant even has the ability to obtain this "land reclamation plan." (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 73:

If biosolids are proposed to be used as part of a reclamation plan at a site that is under the jurisdiction of the Ohio Department of Natural Resources (ODNR), ODNR must give their approval of that plan before reclamation work can be carried out. No reclamation should be done at an ODNR regulated site until they have given approval. It is still ultimately Ohio EPA's decision to allow beneficial use of biosolids at a reclamation site after ODNR's approval.

Comment 74:

3745-40-03(C)(3) - To enable the establishment and continuation of a sustainable beneficial use of biosolids in the State of Ohio we need rules that are protective of the environment, while not being cumbersome and burdensome. Requiring a Sludge Management Plan for such an insignificant volume of biosolids is expensive in our time and yours, cumbersome and burdensome. Requiring a management plan from non-permittees is both cumbersome and burdensome. There is not an immediate and significant danger to public health from EQ products being made into other products. If particular types of EQ, such as those stabilized with lime/kiln dust materials, are problematic, then key in on them. Regulating a non-permitted entity will be problematic for the EPA. This rule is regulating nonpermittees. The only way this can happen is to make the permittee responsible for the actions of their non-permittee customers. This will

have a chilling effect on EQ sales, marketing, and utilization. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 74:

This is not a requirement for all nonpermitted entities that handle bulk biosolids. This provision has been placed in rule to give the director the authority to require a management plan if Ohio EPA finds that it is necessary to protect public health and the environment. Ohio EPA does not anticipate that this requirement will increase the current workload for agency staff significantly, if at all.

Comment 75:

3745-40-03(C)(3) - To enable the establishment and continuation of a sustainable beneficial use of biosolids in the State of Ohio we need rules that are protective of the environment, while not being cumbersome and burdensome. Requiring a sludge management plan for such an insignificant volume of biosolids is both. Regulating a non-permitted entity will be problematic for the OEPA. This rule is regulating non-permittees responsible for the actions of their non-permittee customer. This will also greatly increase the needs of monitoring the program and you have not staff to the promised 6 people yet, even through you have taken the money. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 75:

This is not a requirement for all nonpermitted entities that handle bulk biosolids. This provision has been placed in rule to give the director the authority to require a management plan if Ohio EPA finds that it is necessary to protect public health and the environment. Ohio EPA does not anticipate that this requirement will increase the current workload for agency staff significantly, if at all.

Comment 76:

3745-40-03(C)(3) - This requirement unreasonably restricts the flow of exceptional quality biosolids. A soil blender may use more than fifty cubic yards per year to make a soil product and then may modify his recipe to make a slightly different product. Does Ohio EPA have a regulatory mechanism for determining if it will or will not require a management plan for the number of different people who are not permittees who could generate a product. This paragraph requires a determination prior to the fact. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 76:

This is not a requirement for all nonpermitted entities that handle bulk biosolids. This provision has been placed in rule to give the director the authority to require a management plan if Ohio EPA finds that it is necessary to protect public health

and the environment. Ohio EPA does not anticipate that this requirement will increase the current workload for agency staff significantly, if at all.

Comment 77:

3745-40-03(C)(4)(b)(iii) - This appears to request information on specific land application sites in the management plan, this departs from the current method of site authorizations. This appears to provide an impossible standard requiring a single map of land application areas potentially covering several counties. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 77:

Ohio EPA agrees. This requirement will be removed from the draft rules.

Biosolids Classifications – OAC Rule 3745-40-04

Comment 78:

3745-40-04(A)(1) - Per the definition of Class A sludge, including the required adherence to either VAR9 or VAR10, such sludge cannot be stored following treatment for a period greater than 8 hours before land application. However, 3745-40-10 requires a minimum of 120 days of on-site storage capacity for biosolids, with seemingly no exception provided for those facilities which are set up to generate a Class A biosolids product. As written, this requirement would seem to create confusion and undo hardship on those facilities who attempt to produce a higher-quality sludge product, particularly those facilities with storage space constraints. (Aaron McCoy, Campbell Soup Supply Company)

Response 78:

The entity may choose to perform one of the VAR options 1 through 8, which would then allow them to store the material for longer periods at the plant. Also, the facility could treat the material as Class B biosolids and store the material longer at the plant. In these cases, Ohio EPA wants to ensure that 120 days of storage are available at the plant.

Comment 79:

3745-40-04(B) - 40 CFR 503 and the current OAC 3745-40-05 (N)(3) and (4) allows two opportunities for seeking approval of PFRP processes. Such approvals have to go through the USEPA Pathogen Equivalency process and are assessed and approved by USEPA experts. The new OEPA rule should have the same allowance. If the USEPA chooses to discontinue their evaluation of alternative PFRP processes in the future, then the OEPA rule could be changed in the future. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 79:

The rules as drafted still allow an entity to seek approval through the USEPA Pathogen Equivalency Committee for a treatment process. OAC 3745-40-05 (N)(3) and (4) in the current rules do not require approval by USEPA. These options only require testing of sewage sludge to show that it does not contain pathogens. There is no treatment requirement in these options, therefore other pathogens that are not required to be tested for could be present in the biosolids but not removed because a thorough treatment is not occurring. These options are being removed under the suggestion of the USEPA Pathogen Equivalency Committee.

Comment 80:

3745-40-04(B) - This revision does not allow for systems that provide Class A lab results. Instead approval by the USEPA Pathogen Equivalency Committee must be obtained. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 80:

These options only require testing of sewage sludge to show that it does not contain pathogens. There is no treatment requirement in these options; therefore, other pathogens that are not required to be tested for could be present in the biosolids but not removed because a thorough treatment is not occurring. These options are being removed under the suggestion of the USEPA Pathogen Equivalency Committee.

Comment 81:

3745-40-04(B)(1) - What studies has Ohio EPA done on this requirement. This greatly increases the cost of complying with the fecal coliform density of the rule. We suggest that the division require that the fecal coliform test be used to confirm that the process being used by the treatment works has produced biosolids that meet the indicator organism concentrations. The process parameters that are used at each treatment works should be defined and records that are to be kept should be outlined in each NPDES permit for the process that is used. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 81:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 82:

3745-40-04(B)(1)(a)(ii) - Requiring the measurement of fecal coliform in raw sludge in order to allow for the calculation of at least a minimum two log reduction in fecal coliform density is unreasonable. Historically, our processes

treat sludge and create a biosolids product with maximum fecal coliform density of less than 500,000 MPN. So long as the two million MPN quality is attained, the density in the raw sludge should be irrelevant. I request the proposed requirement of measuring fecal coliform density in raw sludges be removed from the rule. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 82:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 83:

3745-40-04(B)(1)(a)(ii) - The requirement to achieve two log reduction should be removed, and the current rules for pathogen reduction should remain unchanged. Achieving two log reduction is much more stringent than the current rule. As an example, the waste activated sludge (WAS) and the biosolids after digestion were sampled at the Allen County Shawnee II Wastewater Treatment Plant (WWTP) and analyzed for fecal coliform bacteria in September of 2008. The geometric mean of seven samples of WAS was 50,118,723 mpn/g of total solids, and the biosolids after digestion was 794,328 mpn/g of total solids. The biosolids were well below the current requirement of 2,000,000 mpn/g of total solids, but would not have met the two log removal requirement. The Shawnee II WWTP is a sequencing batch reactor activated sludge treatment plant and does not have primary clarifiers. The waste activated sludge is pumped to aerobic digesters for stabilization. After digestion, the biosolids are thickened using a gravity belt thickener and land applied to agriculture fields using direct injection. (John Motycka, Superintendent, American-Bath WWTP)

Response 83:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 84:

3745-40-04(B)(1)(a)(ii) - The change in sampling requirements is both costly and not needed. The federal standard of less than 2 million fecal coliform is a risk based standard and if the land application practices are followed quite effective for biosolids. The need to double the testing by adding raw is not necessary. You have also added language about the raw sludge needing to show a two log reduction from geometric mean of fecal coliform. This makes no sense because you have no good information about the raw sludge numbers. This rule wastes

time and money for the biosolids beneficial generations. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 84:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 85:

3745-40-04(B)(1)(a)(ii) - I request Ohio EPA eliminate the raw sewage sludge testing for fecal coliform as found in section 3745-40-04, (B) (1). I have two reasons why. The first one is that we do not have any raw sewage sludge, i.e. our flow goes from preliminary directly to mixed liquor aeration tanks. We are unable to collect a true raw sewage sample. Secondly, if we are adequately treating the sewage sludge, then there is no point of testing raw and stabilized sludge. The stabilized sludge is the only area of concern. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 85:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 86:

3745-40-04(B)(1)(a)(ii) - We believe this is an unnecessary requirement and one that will cause uncertainty in results, results in extra costs to wastewater treatment plants producing class B biosolids, and provide no further protection to the environment. Treatment of biosolids is already ensured by the vector attraction reduction requirements and additional requirements for pathogen monitoring are not needed to ensure that biosolids receive treatment. We suggest that the previous requirement of monitoring to confirm that the treatment process has met the required concentrations of indicator organisms. We suggest that the requirement to monitor raw sewage to verify 2 log reduction be eliminated from the requirement. As previously required, plants should keep adequate records of the processes that are used at each treatment works and appropriate records kept to document treatment. (OWEA Residuals Management Committee)

Response 86:

Ohio EPA will remove the requirement to test the raw sludge for fecal coliform. However, documentation of a stabilization process will be included as a

requirement to ensure pathogen reduction and protection of human health and the environment.

Comment 87:

3745-40-04(B)(2) - The Draft for aerobic digestion reference the White House Document. My understanding of this document recognizes the process benefit of operating digestion tanks in series. Equipment suppliers such as Enviroquip of Austin, Texas have stated that the White House Document supports a position to operate digestion tanks "in series" at detention times of 42 days or less-as opposed to 60 days for tanks operated "in parallel." Has the Ohio EPA considered this? (Dale Kocarek, Vice President, OWEA)

Response 87:

Ohio EPA is aware of this. However as drafted the rule is consistent with requirements for aerobic digestion established within 40 CFR Part 503. If the suggested language was adopted it would be less stringent than the current federal requirements.

Comment 88:

3745-40-04(B)(2) - The Draft Rules propose a solids detention time (SRT) of 60 days at a temperature of 15 degrees C. Experience has shown that this temperature may not be sustainable in winter conditions without being covered-an added expense. Commonly, digester temperatures can drop to below 15 degrees C during the coldest periods in winter to about 10 degrees C. The Draft may wish to acknowledge this. (Dale Kocarek, Vice President, OWEA)

Response 88:

Ohio EPA expects that the time and temperature requirements will be met throughout the year for facilities that utilize aerobic digestion as their pathogen reduction alternative. If the minimum time and temperature requirements cannot be met by a facility they can choose to meet a different pathogen reduction alternative.

Comment 89:

3745-40-04(B)(2)(a)(iii) - The requirement to have one milligram per liter of residual dissolved oxygen every day is costly and not needed. Jet-aeration systems can provide mixing and suspension of particles with dissolved oxygen levels as low as 0.3 mg/L using facultative bacteria. The last week to a few days, the dissolved oxygen will rise to the 1 mg/L level and have no problem passing the vector attraction of 1.5 mg/L per gram of total solids. Many other type system can use mixing with low D.O. and put out a good biosolids. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 89:

Ohio EPA will revise the rule as follows:

“To ensure that the aerobic digester keeps the digester solids in suspension and well mixed, a positive dissolved oxygen level shall be maintained in the digester. The dissolved oxygen concentration shall be determined at least once per day.”

Comment 90:

3745-40-04(B)(2)(a)(iii) - For aerobic digestion design, we suggest that the requirement to maintain 1 mg/l be dropped in lieu of “maintaining positive dissolved oxygen levels.” For example, jet aeration systems are a very effective mixing and oxygen delivery system and are fully capable of providing full mixing and suspension with very low DO levels. This produces two benefits. It helps create a sustainable solution to sludge handling by reducing energy consumption. In addition, by operating in an oxic/anoxic mode, it encourages the proliferation of facultative bacteria, which has a lower yield coefficient than strict aerobic bacteria. The end result is less mass for dewatering and disposal, which is also a more sustainable approach to facilities operation and management. (Dale Kocarek, Vice President, OWEA)

Response 90:

Ohio EPA will revise the rule as follows:

“To ensure that the aerobic digester keeps the digester solids in suspension and well mixed, a positive dissolved oxygen level shall be maintained in the digester. The dissolved oxygen concentration shall be determined at least once per day.”

Comment 91:

3745-40-04(B)(6) - With regard to pathogen reduction option P6 and vector attraction reduction option VAR6, the objective of both options appears to be the treatment of sludge through elevated pH and holding time. However, entitling P6 as Lime Treatment would seem to limit that option to a single chemical, regardless of considerations of cost and effectiveness. Consideration should be paid to open this option up to other alkaline treatment options, as seemingly allowed by option VAR6. (Aaron McCoy, Campbell Soup Supply Company)

Response 91:

The White House document states the following, “ the lime stabilization process is relatively straightforward: lime – either hydrated lime, Ca(OH)₂; quicklime, CaO; or lime containing kiln dust or fly ash - is added to sewage sludge in sufficient quantities to raise the pH above 12 for 2 hours or more after contact, as specified in the Part 503 PSRP description for lime stabilization:

- Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after 2 hours of contact. For the Class B lime stabilization process, the alkaline material must be a form of lime. Use of other alkaline materials must first be demonstrated to be equivalent to a PSRP.”

Comment 92:

3745-40-04(B)(7) and (B)(16) - The draft rule states that prior approval must be received from the pathogen equivalency committee (PEC) prior to using a process to significantly reduce pathogens. The PEC does not approve equivalent processes, but makes recommendations to the permitting authority regarding equivalency. This comment is also relevant to section (B)(16) regarding processes to further reduce pathogens. (John Colletti, USEPA Region 5)

Response 92:

Ohio EPA will revise the rule to address this comment.

Comment 93:

3745-40-04(B)(8)(a)(iii) - There is a typo in the third line. There should be a space between “the” and “temperature”. This is also the case in section (B)(8)(a)(iv). (John Colletti, USEPA Region 5)

Response 93:

Ohio EPA will make the change as suggested.

Comment 94:

3745-40-04(B)(8)(b) - It is recommended that section (B)(8)(b) include a requirement to maintain and submit with the annual report records on percent solids. (John Colletti, USEPA Region 5)

Response 94:

Ohio EPA will make the change as suggested.

Comment 95:

3745-40-04(B)(10) - This proposed revision specifies the type of acceptable bulking agents for use in composting and limits the source of biosolids to solely that of the generator/owner operator of the facility; otherwise the operator must comply with solid waste composting rules in ORC 3745-27-40 and 3745-27-47 and 3745-37. The City of Columbus’ composting facility received Ohio EPA approval for the use of several alternate bulking agents not specifically included in the definitions for the terms “bulking agent” and “additives”. The draft rules should include the phrase “or other materials as approved by the Director” at the end of draft OAC 3745-40-04(B)(10)(a)(i)(b) to allow for the use of these other approved agents. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Response 95:

The rule will be revised to allow for Division of Surface Water approval of other bulking agents and additives.

Comment 96:

3745-40-04(B)(10)(a)(i)(b) - This requirement unnecessarily limits and penalizes biosolids operations that accept biosolids from other municipalities and that use bulking agents and additives. All facilities should be required to operate under the pathogen and vector attraction reduction requirements and to use additives that are not considered harmful or hazardous waste. It is suggested that OEPA revise this requirement. (OWEA Residuals Management Committee)

Response 96:

The rules will be revised to allow for alternative additives and bulking agents, as well as other sewage sludge as feedstocks.

Comment 97:

3745-40-04(B)(12)(b) - It is recommended that section (B)(12)(b) include a requirement to maintain and submit with the annual report records on mean cell residence time. (John Colletti, USEPA Region 5)

Response 97:

Ohio EPA will make the change as suggested.

Comment 98:

3745-40-04(B)(8-16) - Part 503 allows heat treatment as a process to further reduce pathogens. This process is not included in the draft rules. Is this an oversight or has Ohio EPA decided that this process can not be used within the state? (John Colletti, USEPA Region 5)

Response 98:

Upon review, Ohio EPA determined that heat treatment and pasteurization were redundant, in that pasteurization would be achieved prior to meeting the temperature requirements for heat treatment. Pasteurization does not differentiate between solid and liquid, therefore pasteurization and heat treatment as described are essentially the same treatment.

Comment 99:

3745-40-04(C)(1) - There appears to be an error in the formula for the calculation of the Fractional Volatile Solids Reduction (FVSR) in 3745-40-04 Paragraph (C)(1)(a) of the draft rule. The term VS_f does not mean "final volatile solids", and VS_b does not mean "volatile solids before treatment" as stated. In the "Control of Pathogens and Vector Attraction in Sewage Sludge" (EPA, 1999) document, the

"f" subscript refers to "feed" to the digester, and the "b" subscript is "bottom" of the digester, referring to the digested solids. The correct definitions are:

VS_f=fractional volatile solids feed before treatment (Often referred to as VS_{in}).

VS_b=fractional volatile solids after treatment (Often referred to as VS_{out}).

To convert FVSR to percent volatile solids reduction, multiply FVSR x 100. (Dale Kocarek, Vice President, OWEA)

Response 99:

Ohio EPA will make the change as suggested.

Comment 100:

3745-40-04(C)(4) - As drafted, vector attraction reduction option VAR-4: specific oxygen uptake rate (SOUR) test states the sewage sludge must have a total solids content of two percent or less. In our experience, we successfully treat sewage sludge that measures at over two percent. Increased percent solids enhances our sludge storage capacity and aeration efficiency, and improves heat sustainability. Therefore, the rule should be amended to perhaps suggest a recommended range of percent solids from real-world operations that have proven data this option is attainable with percent solids greater than two percent. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 100:

Ohio EPA will remove the requirement specifying that the total solids content be two percent or less to perform the SOUR test.

Comment 101:

3745-40-04(C)(4) - The requirement of the sewage sludge to be two percent or less is a costly and bad value for class B biosolids. The aerobic digester can work quite efficient at percent solids of 3 percent and generate more heat in the digester. The higher percent solids save space in digesters. This increase cost and doesn't improve the quality of the biosolids. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 101:

Ohio EPA will remove the requirement specifying that the total solids content be two percent or less to perform the SOUR test.

Comment 102:

3745-40-04(C)(9)(i) - For the term "significant amount of sewage sludge", does "significant" mean 10%, 20% or some other value? Using terminology that has different meanings to people are difficult to regulate and therefore should not be used. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 102:

As drafted the rule is consistent with requirements for injection established within 40 CFR Part 503.

Comment 103:

3745-40-04(C)(9-10) - Vector attraction requirements mandate Class A biosolids be incorporated immediately, VAR 9 or VAR 10. This restriction imposes additional cost to the application process. The City objects to the aforementioned mandate and to the prohibition of Class A field storage in accordance with VAR-10 (page 31). (Mark Feldman, Superintendent, City of Marion WWTP)

Response 103:

As drafted the rule is consistent with requirements for injection and incorporation established within 40 CFR Part 503.

Comment 104:

3745-40-04(D)(2) - The City is very concerned about this change-especially for zinc limits, as is discussed below. Replacing the pollutant ceiling concentrations for all metals with the pollutant monthly average concentrations goes beyond the risk-based criteria used to establish the 503 limitations [see 58 Fed. Reg 9248 (February 19, 1993)] and is thus unwarranted. The pollutant ceiling concentrations are values that allow for add spikes in peak loads and that afford biosolids programs flexibility in adhering to regulations while meeting environmental targets. This flexibility needs to be preserved. Adoption of the new rule will have significant adverse consequences for the City of Columbus. A significant issue for Columbus is that a major loading of zinc into the City's wastewater treatment plants (WWTPs) comes from its public water supply. The City's water treatment plants add zinc-orthophosphate to the water as part of its treatment process to minimize corrosion and comply with the federal Lead and Copper Rule for drinking water. Addition of this zinc-containing water treatment chemical is required under terms of a September 2000 Agreement with US EPA. Although the City has established a local limit for zinc under its approved industrial pretreatment program, the actual industrial loading of zinc into the City's WWTPs is relatively small. Hence the major source of zinc in the biosolids produced by the WWTPs is from the treated public water supply. Reduction of the current zinc ceiling limit from 7,500 mg/kg to the proposed 2,800 mg/kg will pose significant challenges to Columbus' biosolids composting program. The City has calculated that Jackson Pike WWTP would likely exceed the proposed 2,800 mg/kg ceiling limit approximately 5% of the time. As a consequence, the land application program would frequently be disrupted by having to divert otherwise acceptable product to landfills. This result would be exactly opposite to the intended eco-friendly solutions to biosolids management and the efficiency and effectiveness of the existing program. In addition, "Comtil" (the City of

Columbus brand name) compost occasionally exceeds the current Table 3 limit for a single test, although not for a monthly average. If the monthly average concentration is eliminated, then composted product staged for sale would occasionally be diverted to the landfill after testing because it exceeded the zinc limit of 2,800 mg/kg. Zinc is an essential micro-nutrient like copper. Plants and animals cannot survive without it. The current ceiling concentration limit of 7,500 mg/kg is protective of the environment. Even in the event of a severe spike of zinc to 7,500 mg/kg, the amount of zinc applied at the maximum allowable rates (65 dt per acre for reclamation) would be substantially less than the allowable cumulative loading for zinc. If the zinc concentration in a single agronomic application was at the current ceiling concentration, nutrient loading requirements would limit the zinc applied to approximately 5% of the cumulative pollutant loading for zinc. The draft rule unnecessarily restricts metals when nutrient limits are already limiting applications. Since the existing Ohio biosolids rule pollutant concentrations (equivalent to the Federal 503 rule) were risk-based established to avoid detrimental effects from these pollutants to highly exposed individuals, there is no need for the proposed more stringent ceiling concentrations. We understand that the Agency seeks to simplify some of the beneficial use requirements for biosolids. However, simplicity alone should not be the driving force to change limits that meet federal requirements and have generally proven to be protective of public health. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Response 104:

Ohio EPA will revise the rules to be consistent with pollutant limits established within 40 CFR Part 503.

Comment 105:

3745-40-04(D)(2) - Table D-1 in this proposed rule adopts ceiling concentration limits (mg/kg) for regulated metals that are currently monthly average concentrations (mg/kg). This proposed decision mimics Ohio EPA's former policy of invoking existing effluent quality (EEQ) limits onto direct dischargers in the late 1980's (which policy was eventually rescinded based on numerous permit appeal decisions). The ceiling and monthly average concentration limits were developed by USEPA and over the past decade accepted by the water pollution control industry as the recognized target values for measuring environmental program compliance. Ohio EPA's decision to not follow a risk-based procedure to justify lower limitations by simply renaming monthly average concentrations as ceiling concentration limits should be rescinded. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 105:

Ohio EPA will revise the rules to be consistent with pollutant limits established within 40 CFR Part 503.

Comment 106:

3745-40-04(D)(2) - After a conversation with Paul Novak at the EPA, I am concerned with any changes to the metal limitations in the 503 regulations. There are many towns that are having problems with the rules as they stand. To lower the limits further will put a lot of communities at risk of a lot higher costs. The phosphorus limits have already further limited the amount of metals that can be applied. The phosphorus rules changed how often a field can be applied upon. Therefore lowering the limits further has little benefit because the phosphorus rules have already lowered to amount applied. (Ryan Evers, Mike's Sanitation)

Response 106:

Ohio EPA will revise the rules to be consistent with pollutant limits established within 40 CFR Part 503.

Comment 107:

3745-40-04(D)(2) - The original two tables for metals which including the total cumulative pollutant load is better for beneficial reuse because often you may have a level for zinc above the 2800 milligrams per kilogram dry weight but very far below the 7500 milligrams per kilogram dry weight which will have to be land filled. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 107:

Ohio EPA will revise the rules to be consistent with pollutant limits established within 40 CFR Part 503.

Comment 108:

3745-40-04(D)(2) - This eliminates the benefit of an "averaged" sample since a single hit above the new ceiling limit will force a generator to landfill dispose of the biosolids. For example, composted biosolids tested once with a zinc result of 3000 mg/kg would mean it must be landfilled. Currently the average analysis is used for EQB and a single outlying data point won't disqualify the product sold. Yet zinc and copper are essential micro-nutrients. Neither metal would exceed 20% of the Cumulative Pollutant Loading Limit if applied at the reclamation rate of 65 dt/acre. The draft rule doesn't completely eliminate 503 Tables 2 & 3 since existing permits will use the tables until permits expire, adding confusion to the standards. The current 3 pollutant tables under 40 CFR part 503 are protective and serve the purpose. OEPA reported that only 3 biosolids exceeded the current average pollutant concentration limit, so they intend to drop Ceiling Limits to the current average limits. This change to the rule reduces local flexibility without an increase in protection of public health or the environment. (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 108:

Ohio EPA will revise the rules to be consistent with pollutant limits established within 40 CFR Part 503.

NANI – OAC Rule 3745-40-05

Comment 109:

3745-40-05 - It is recommended that this rule be clarified to limit the extent to which the generator is responsible for providing the notice and necessary information (NANI). The generator should only be responsible for providing the NANI to the initial customer. This would be accomplished either by a label on the bag or other container or through an information sheet included with the biosolids. As written, this requirement lends one to believe that the generator's responsibilities would extend beyond what they can possibly control. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 109:

As written, Comment 111 is reflective of Ohio EPA's intent with this rule. The generator is only responsible for providing NANI to the initial customer. This will be clarified as much as possible in the rule.

Comment 110:

3745-40-05(B) - The draft rules propose that "any person who is not a permittee and is distributing biosolids shall provide the initial person receiving the biosolids with a required statement [3745-40-05(B)]. In principle, the City concurs with the importance of labeling and providing customers with all relevant information. Any person that modifies, amends, dilutes, or in any manner changes the composition of the City of Columbus biosolids will now have a new product with new requirements. Topsoil amended with biosolids is not by definition "biosolids". It would be inappropriate to blend topsoil with ComTil in a 5:1 ratio and then provide information to the customer claiming that topsoil is Comtil with a given Kjeldahl nitrogen and ammonia nitrogen test level. Alternately, if a wholesale customer buys ComTil and retail sells ComTil without providing the information to the customer, then he is doing a disservice to the customer who needs the information. We need clarification from OEPA to verify that the generator isn't responsible for a product and information after the biosolids is changed by the customer. Without clarification, the consequence of this proposal may result in Comtil's wholesale customer being required to label the biosolids upon retail sale. The question arises whether, for example, a nursery will be obligated to label such items as flower pots that contain Comtil biosolids in the potting soil mix prior to sale. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Response 110:

It is Ohio EPA's intent that the generator only be responsible for providing NANI to the initial customer. If that customer then provides the biosolids to someone else the person who is distributing the biosolids is now responsible for that NANI, not the original generator of the biosolids. Anybody who is not a generator of biosolids that further distributes the biosolids is responsible for notifying the person who receives the biosolids that the material they are receiving contains biosolids. The distributor is not required to include the analytical information that was received from the generator. The distributor may choose how this notice is provided. Ohio EPA will provide the following comment in the rule to provide additional clarification:

"[Comment: A permittee who provides biosolids to another person is not responsible for the notification requirement in paragraph (B) of this rule.]"

Ohio EPA feels that it is a consumer's right to know if a material they are buying contains biosolids; therefore, the notice as described above must be passed along in all situations.

Comment 111:

3745-40-05(B) - Is it the intention of OEPA to regulate labeling of potted plants with some EQB compost blended in the potting soil mix? At what point will a biosolids customer know that he must comply with ORC 3745-40? Generators may have the time to educate wholesale distributors, however secondary and tertiary customers may not understand the level of customer education necessary when using biosolids in soil / potting mixes. Since biosolids products are competitively priced, many wholesale customers may take the easy path and avoid any potential issues with biosolids. OEPA wants customers at all levels to be informed about the contents of products they purchase. OEPA needs to back the intent of the rule that an EQ biosolids product can be produced that does not require labeling or notification. (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 111:

It is Ohio EPA's intent that the generator only be responsible for providing NANI to the initial customer. If that customer then provides the biosolids to someone else the person who is distributing the biosolids is now responsible for that NANI, not the original generator of the biosolids. Anybody who is not a generator of biosolids that further distributes the biosolids is responsible for notifying the person who receives the biosolids that the material they are receiving contains biosolids. The distributor is not required to include the analytical information that was received from the generator. The distributor may choose how this notice is provided. Ohio EPA will provide the following comment in the rule to provide additional clarification:

[Comment: "A permittee who provides biosolids to another person is not responsible for the notification requirement in paragraph (B) of this rule.]"

Ohio EPA feels that it is a consumer's right to know if a material they are buying contains biosolids; therefore, the notice as described above must be passed along in all situations.

Comment 112:

3745-40-05(B) and (C) - Once biosolids is exceptional quality it becomes a marketable commodity and part of commerce. This is the basic premise of 40 CFR 503 and OEPA rules up to this point. This premise has provided the motivation for taking on the capital expenditures necessary to generate Exceptional Quality Biosolids. Many recycled materials are in commerce, but they are not identified as such unless it is specifically beneficial in marketing the products. Examples of recycled content products include fly ash in bowling balls, FGD in dry wall, dried whey in many foods, wood in mulches, many metal products, many paper products, many plastic products, and car batteries. These are regularly and customarily accepted as new products. Soils or mulches with biosolids content are also regularly and customarily accepted as new products because they perform as well or better than new products. Some manufacturers choose to advertise this fact, while others don't. It is problematic that the OEPA is choosing to make this business decision for commerce with NANI past the initial sale. This rule also is regulating non-permittees. The only way this can happen is to make the permittee responsible for the actions of their non-permittee customers. We thought it was the goal of the government to foster safe and reliable sustainability through recycling. Product liability insurance is a normal and customary part of commerce, including soil blending with EQ biosolids. Product liability insurance protects the consumer from issues such as products tainted with bacteria at levels that could cause disease. We are unaware of any documented cases of diseases caused by EQ biosolids in soil and mulch products. Our affiliated companies have managed over 1,000,000 cubic yards of EQ biosolids compost over the past 15 years from the Akron Compost Facility as product without paying any claims on the product liability insurance. Additionally, we've managed additional large volumes of EQ biosolids from numerous other sources, including from out-of-state, without any problems as well. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 112:

It is the goal of Ohio EPA to protect human health and the environment, promote the beneficial use of biosolids and minimize nuisance odors. Ohio EPA feels that it is a consumer's right to know if a material they are buying contains biosolids, therefore the notice as described above must be passed along in all situations.

Site Authorizations - OAC Rule 3745-40-06

Comment 113:

3745-40-06 - This is additional unnecessary regulation of bulk EQ. If the actions of certain biosolids managers and/or biosolids stabilization processes have created problems in the past through inappropriate actions, inactions, or biosolids characteristics, then key in on the known problem. In blunt terms, punish the offenders, not the entire regulated community. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 113:

Ohio EPA will remove 3745-40-06 (B) from the rule.

Comment 114:

3745-40-06 - This is not needed on bulk EQ. The intent of the class A program was to put out a risk free and a market driven product. This is not what the intention for bulk EQ was. If you have had problems, deal with individuals creating issues, but not new regulation. I again wonder where the enforcement will come from when you still haven't staffed to committed level of six people in the biosolids section and still collect the \$600,000 in fees annually. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 114:

Ohio EPA will remove 3745-40-06 (B) from the rule.

Comment 115:

3745-40-06(A)(1)(b) - This paragraph is in error in that it states that the application for an authorization for a land application site shall: (b) be valid only for those conditions stated in the specific site authorization. Condition (b) should not be listed for the application. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 115:

Ohio EPA's intent is to protect human health and the environment. Each site is characteristically unique and site specific conditions/restrictions may be necessary to protect human health and the environment.

Comment 116:

3745-40-06(A)(3) - Does it mean for just acreage increased or decreased, or both? I can see it both ways. For example, a farmer may have eliminated a hedge row thereby increasing the acreage. A farmer may have decreased the acreage by building a pole barn. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 116:

It means both if acreage is increased or decreased. Ohio EPA intends to maintain site authorization records that are accurate to date.

Comment 117:

3745-40-06(B) - The quantity of 50 cubic yards defining bulk biosolids is too small. Is there a difference between “shipping” and “storage” of bulk biosolids? (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 117:

Ohio EPA will remove 3745-40-06 (B) from the rule.

Stockpiling in Field – OAC Rule 3745-40-07

Comment 118:

3745-40-07 - Section (B)(1) prohibits storage of Class A biosolids in accordance with vector attraction reduction options nine and ten. Table E-1 appears to allow Class A biosolids to be stored. This should be clarified. (John Colletti, USEPA Region 5)

Response 118:

Ohio EPA will revise rule 3745-40-07 (B)(1) to read as follows:

“In accordance with vector attraction reduction options nine and ten, the field storage of Class B bulk biosolids and Class A biosolids is prohibited.”

Ohio EPA will revise Table E-1 as suggested for clarification purposes.

Comment 119:

3745-40-07(A) - “protective of human health and the environment and shall not impact waters of the state” This is an overly broad statement since this chapter has been developed to ensure that all biosolids management activities are reasonably protective of human health and the environment. This statement should be eliminated and replaced with specific rules that help cities and towns beneficially use biosolids with certainty. Also see comments at 3745-40-02. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 119:

Ohio EPA attempts to make the rules as all encompassing as possible. However, there may be situations where the conditions of the rule are met, yet there are still impacts to waters of the state due to each site’s characteristically unique parameters. In these cases it may be necessary to impose site specific conditions/restrictions to protect human health and the environment.

Comment 120:

3745-40-07(B)(3) - This is a redundant rule that is also included in 3745-40-06. Since storage in other mobile storage occurs frequently at treatment works when truck trailers are loaded and then not unloaded for up to several days later. This should be clarified that this does not refer to storage in mobile containers at the treatment works or at the land application site. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 120:

Ohio EPA will remove 3745-40-06 (B) and 3745-40-07(B)(3) from rules.

Comment 121:

3745-40-07(C) - Section (C) has two tables listed as Table C-1. The table in section (C)(2) should be Table C-2. (John Colletti, USEPA Region 5, Ohio EPA DDAGW)

Response 121:

Ohio EPA will make the suggested change.

Comment 122:

3745-40-07(C)(1) - Ground water should be excluded from "waters of the state" since ground water is everywhere within 100 feet of the surface of the soil. (OWEA Residuals Management Committee/Bruce MacLeod, Synagro Central, LLC/Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

Response 122:

Ohio EPA will make the change, as requested.

Comment 123:

3745-40-07(C)(1) - This is additional unnecessary regulation of bulk EQ. If the actions of certain biosolids management companies and/or biosolids stabilization processes have created problems in the past through inappropriate actions, inactions, or biosolids characteristics, then key in on the known problem. In blunt terms, punish the offenders, not the entire regulated community. Isolation requirements for bulk biosolids (including EQ) from bedrock (3'); Waters of the State (100'); occupied building (300'); private, potable water source (300'); sinkhole or UIC class V drainage well; medical care facility (1,000'); and/or community public water well ... (1,000') create a compliance minefield for the purchaser of bulk EQ biosolids. We won't have anywhere to sell bulk EQ biosolids if these rules are put into place. EQ compost facilities in Ohio have sold in excess of 2,500,000 cubic yards of compost without a single documented incidence of pollution and the compost is an accepted, valued commercial

product. Application of this isolation criterion will not protect the environment but will end beneficial use. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 123:

As currently drafted the rules do not establish isolation distances for field storage of bulk EQ biosolids from occupied buildings, private potable water sources, medical care facilities, and community public water wells. Isolation distances from waters of the state, bedrock, and sinkholes or UIC Class V drainage wells were established to be protective of waters of the state. EQ biosolids still contain nutrients that may impair water quality if transported offsite.

Also, the Agency proposes to revise the definition of “bulk biosolids” to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 124:

3745-40-07(C)(1) - Current isolation distance is adequately protective. Tripling the distance will eliminate sites but it won't increase settling of solids once suspended. (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 124:

The rule as drafted is consistent with the isolation distances for field storage of bulk biosolids that are currently in the effective rule.

Comment 125:

3745-40-07(C)(1) – EQB [exceptional quality biosolids] management practices (isolation distances) are essentially the same as for Class B biosolids. With draft rules moving in this direction it doesn't justify that additional expense of producing EQB. EQB is produced to be sold in most cases. In the event that agricultural bulk applications are made, they should be handled at agronomic rates or under reclamation standards. (OWEA Residuals Management Committee)

Response 125:

The isolation distances for EQB were developed to be protective of waters of the state. The restriction of 90 days of field storage is necessary to protect human health and the environment. The longer biosolids are stockpiled at a field storage area the greater the likelihood that malodor will arise, impacts to

groundwater and surface water may increase through leaching and runoff from the stockpiled biosolids, as well as possible transmission of viable, disease-causing bacteria, viruses or parasites in surface runoff (Additional information can be found in the **USEPA Guide To Field Storage of Biosolids and Other Organic By-Products Used in Agriculture and for Soil Resource Management**).

It is Ohio EPA's goal to ensure that bulk quantities of biosolids are managed responsibly. Also, the Agency proposes to revise the definition of "bulk biosolids" to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 126:

3745-40-07(C)(1)(Row 8 of table) - DDAGW recommends this setback be removed from the rule. The one-thousand foot setback is a holdover from the 2002 and 2004 rule revisions and is no longer needed. Drinking water source protection areas have been delineated, or are in the process of being delineated, for all of Ohio's community public water systems using ground water; DDAGW anticipates that all drinking water source protection areas will be delineated before the proposed rule revisions become effective. Delineations for new community public water systems or wellfields will be completed as part of the well siting and approval process so that the area included within the drinking water source protection area will be known once the well, wellfield or system becomes active. (Ohio EPA DDAGW)

Response 126:

Ohio EPA DSW will make the change as suggested.

Comment 127:

3745-40-07(C)(2)(Row 3, Column 2 of table) - Much of the text covers setbacks for land application of biosolids and do not appear to be necessary in this rule. DDAGW recommends the text be modified to read:

~~** Three hundred feet from the water supply well if the material is not injected or otherwise incorporated into the soil within twenty-four hours of application. ** One hundred feet from the drinking water supply well if the material is not injected or~~

~~otherwise incorporated into the soil within twenty-four hours of application and a vegetative buffer is installed and maintained around the well. ** Fifty feet from the drinking water supply well if the material is injected or otherwise incorporated into the soil within twenty-four hours of application and the separation distance meets all the isolation standards the public water system must maintain. (OEPA DDAGW)~~

Response 127:

Ohio EPA DSW will make the change as suggested.

Comment 128:

3745-40-07(C)(2)(a)(iii) - This is a problem since no emergency management zone has been delineated or endorsed by the agency. How is the applicator to know about these areas if they haven't be delineated or endorsed. Or are we just supposed to guess. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 128:

Ohio EPA will not authorize any portion of a land application site where this restriction may be applicable.

If storage at a currently authorized site is in violation of this restriction, Ohio EPA will inform the generator.

Comment 129:

3745-40-07(D)(1) - I am confused about the meaning of agronomic rate of bulk biosolids. Should that read nitrogen instead? If not, are we to calculate each parameter for its agronomic rate? If this is the case, then I wish Ohio EPA to remove that part. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 129:

Ohio EPA will revise the rule as requested.

Comment 130:

3745-40-07(E)(1) - Hay bales will not effectively filter water leaving a biosolids storage area. (Kevin Czajkowski, University of Toledo)

Response 130:

The rule indicates:

“...provided that temporary hay bales or other measures are installed prior to precipitation events.”

The straw bales are intended to slow down the flow, thereby minimizing erosion and promoting the settling of solids, prior to its potential for entering waters of the state. An alternative measure would be to install a silt fence.

Comment 131:

3745-40-07(E)(1) - Limiting the storage time before application is important. The longer the biosolids sit around, the more chance it has of containing something undesirable. (Kevin Czajkowski, University of Toledo)

Response 131:

Ohio EPA agrees with this comment.

Comment 132:

3745-40-07(E)(1) - Notes (1) and (2) of the unnumbered table in this rule discusses use of temporary hay bales and permanent hay bales [note: note (2) uses the word “bay” where “bales” should be used]. Is there a definition or diagram that depicts a temporary or permanent installation? We assume the use of straw bales or properly installed silt fencing would be approvable if required. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 132:

Ohio EPA will include clarification in future drafts of the rule.

Comment 133:

3745-40-07(E)(1) - You may want to revise that to “straw bales” as I have never seen any one use hay. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 133:

The rule will be revised, as requested.

Comment 134:

3745-40-07(E)(1) - The City objects to the requirement of hay bales around field storage. This is not pertinent to a dry lime solid such as the City of Marion's product. The City also objects to the requirement of weekly soil sampling to be submitted to the OEPA concerning soil moisture and precipitation data. Additional restrictions results in more expenses. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 134:

The field storage requirements were developed to be protective of waters of the state. A dry lime solid such as the City of Marion's product still contains nutrients that may impair water quality if transported offsite. It is Ohio EPA's goal to ensure that field stockpiled/stored biosolids are managed responsibly.

Weekly soil sampling to be submitted to the OEPA concerning soil moisture and precipitation data is to justify that land application cannot occur.

Ohio EPA wishes that biosolids be land applied as soon as possible to prevent unintended impacts to human health and the environment.

Comment 135:

3745-40-07(E)(1) - Does OEPA expect the applicator to remove biosolids that exceeds the time limit because the field is too wet for access? We believe that more damage will be done trying to remove the material than waiting for an acceptable time to land apply the material. (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 135:

Ohio EPA would expect that any biosolids, which can not be spread within 90 days, be removed from the site. For situations where it would be anticipated that storage could exceed 90 days, a regional storage facility should be evaluated. In addition, a site typically has an access lane, so accessing the field should not cause damage to the field.

Comment 136:

3745-40-07(E)(1) - In Table E-1 of 3745-40-07 the field storage requirements are similar for all classes of bulk biosolids. Exceptional quality bulk biosolids requires the same installation of hay bales or other measures as Class B. While sediment control is a recognized goal, the City questions the value of obligating a contractor to establish runoff water diversion for temporary staging of exceptional quality bulk biosolids such as Comtil before it is applied as part of a landscaping project when ComTil mulch is dry enough to minimize runoff or movement of nutrients when in storage. (Dominic Hanket, Assistant Director, Regulatory Compliance Section, City of Columbus)

Response 136:

The field storage requirements were developed to be protective of waters of the state. A dry product such as the City of Columbus ComTil mulch product still contains nutrients that may impair water quality if transported offsite. It is Ohio EPA's goal to ensure that field stockpiled/stored biosolids are managed responsibly.

Comment 137:

3745-40-07(E)(2) - This paragraph references back to paragraphs (B)(1) to (B)(3) of rule 3745-40-03. Paragraph (B)(1) of rule 3745-40-03 in turn we believe is intended to reference back to this paragraph. A circular reference such as this

makes it very difficult to read and understand what the rule is requiring. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 137:

The reference in the current draft set of rules is correct. The requirements for land reclamation are all applicable but they do not all fit within a single rule. Therefore, it is necessary to reference all rules applicable to land reclamation so that the reader is aware of all applicable requirements.

Comment 138:

3745-40-07(E)(2)(b) - The proposed requirement to test the pH once every 24 hours is burdensome and unreasonable. History has shown that if sufficient application of alkaline product occurs, the pH does not reduce below nine S.U. within the normal stockpiling periods. This once per day pH testing should be amended to "once every 7 days" at a minimum. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 138:

Ohio EPA will modify the rule to remove the pH monitoring requirement for stockpiled biosolids. In future drafts of the rule, field storage of alkaline stabilize biosolids that contain unstabilized solids will be prohibited.

Comment 139:

3745-40-07(E)(2)(b) - This rule is creating more cost and hardships on the regulated community. The pH doesn't change that fast that you would need every 24 hour measurement. The odors if they are going to occur will be when the stock pile is opened for application not during storage unless not enough alkaline material is used. If a reading is necessary it should be done before application to make sure the pH is above 9.0 pH.

(Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 139:

Ohio EPA will be removing this requirement. Please see the response to previous comment.

Comment 140:

3745-40-07(E)(2)(b) - The City also objects to pH monitoring every 24 hours until the solids are land applied. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 140:

Ohio EPA will be removing this requirement. Please see the response to comment 138.

Comment 141:

3745-40-07(E)(2)(b) - The requirement to monitor pH once every 24 hours is very expensive. The pH of alkaline stabilized biosolids is a parameter that we believe changes slowly over time. A change over 24 hours would be minimal. At the most a weekly requirement for this monitoring would provide the assurance that the pH of the biosolids is being maintained. (Bruce MacLeod, Synagro Central, LLC/OWEA Residuals Management Committee)

Response 141:

Ohio EPA will be removing this requirement. Please see the response to comment 138.

Comment 142:

3745-40-07(G)(3)(d) - "potential for a discharge" - potential is not defined. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 142:

The definition of potential should be evaluated on a case by case basis and would consider such site specific parameters as precipitation events, slope and proximity to waters of the state.

Isolation Distances – OAC Rule 3745-40-08

Comment 143:

3745-40-08(C)(1) - A very serious shortcoming that I see in the regulations is that it does not address tile drains. I would like to see the biosolids rules for tile drains to be at least as strict as the ones for CAFO manure spreading, <http://www.epa.state.oh.us/dsw/cafo/NPDESMMPCompleteUpdatePacket.pdf>. Tile drains offer a quick pathway for pathogens and other materials in biosolids to enter the surface waterways. This is especially true for biosolids that are injected. (Kevin Czajkowski, University of Toledo)

Response 143:

The rules will be revised as requested. Also, Rule 3745-40-12 will be revised to include the following:

“The director may require sampling and monitoring for pollutants at any drain tile outfall, including sampling for:

- (i) CBOD₅;

- (ii) Total suspended solids;
- (iii) Fecal coliform bacteria;
- (iv) Phosphorus; or
- (v) Total inorganic nitrogen.”

Comment 144:

3745-40-08(C)(1) - We would like to see the rule for injected isolation distances amended to include immediate incorporation. This allows for the inclusion of cake land application as well. Immediate incorporation is equal in status for the following rules: frequently flooded ground, a VAR requirement option, and 15 % slope restrictions. It makes no sense that immediate incorporation cannot be equal to injection in the isolation distance chart for a much less impactable rule that flooded ground, VAR requirements or 15% slope applications, especially since the incorporated product is usually cake and not liquid. (Tom Abraham, Agri-Sludge, Inc.)

Response 144:

The current draft rules define the same isolation distance for the land application of biosolids, regardless of whether the biosolids are injected or immediately incorporated. The rules also include a provision that allows a resident of an occupied building to reduce the isolation distance requirement.

Comment 145:

3745-40-08(C)(1) - We would like to see the EPA stay with the 100 foot buffer for occupied buildings and private potable water source instead of now moving it to 300 feet, or allow for this requirement to state 300 feet for neighbor occupied buildings and private potable water sources, and 100 feet for landowners/biosolids users accepting the product if they so desire. It seems as though science is not the reason for this decision as trying to eliminate a nuisance call from a neighbor. Henceforth, at what length shall we go to eliminate nuisance calls? We could end up with no land application program when all is said and done if we continue on this course. Yet for the sake of the landowner, please give them the option. If 3745-40-08 (C) (2) is to satisfy this request, then we need to start making the forms available, because we will have thousands of forms that need signed and approved for present application sites, much less the new ones. (Tom Abraham, Agri-Sludge, Inc.)

Response 145:

The rules include a provision that allows a resident of an occupied building to reduce the isolation distance requirement.

Comment 146:

3745-40-08(C)(1) - We would like to see the EPA keep the medical care facility distance at 300 feet if injected or immediately incorporated as has been done in the past, or just eliminate the Medical Facility isolation distance requirement all

together. The isolation distance for medical care facilities was introduced into the program many years ago by a disgruntled neighbor of an Agri-Sludge, Inc. farmer/biosolids beneficiary who happened to own a medical facility named Mr. Ted DeHass. This particular individual whom lobbied for this rule is no longer an employee of the nursing care facility. He also has recently stated that he has no problem with the way we perform the service presently with injection. The reason we asked him about this is because he still lives next door to the nursing home and we wanted to know if he was still complaining. Lastly, the facility he used to run (Castle Nursing Homes) sold in 2007, and the new owners have had no complaints for two years with us utilizing the farmer across the street from the medical care facility. (Tom Abraham, Agri-Sludge, Inc.)

Response 146:

The 1,000-foot isolation distance requirement is for Class B biosolids and is defined to protect public health. There is no isolation distance requirement from medical care facilities for Class A or EQ biosolids.

Comment 147:

3745-40-08(C)(1) - This is additional unnecessary regulation of bulk EQ. If the actions of certain biosolids management companies and/or biosolids stabilization processes have created problems in the past through inappropriate actions, inactions, or biosolids characteristics, then key in on the known problem. In blunt terms, punish the offenders, not the entire regulated community. (Bruce Bailey, Schmack BioEnergy)

Response 147:

The isolation distance requirements were developed to be protective of waters of the state. EQ biosolids still contain nutrients that may impair water quality if transported offsite. It is Ohio EPA's goal to ensure that the beneficial use of biosolids includes best management practices.

Comment 148:

3745-40-08(C)(1) - Isolation requirements for bulk biosolids (including EQ) from bedrock (3'); Waters of the State (100'); occupied building (300'); private, potable water source (300'); sinkhole or UIC class V drainage well; medical care facility (1,000'); and/or community public water well ... (1,000') create a compliance minefield for the purchaser of bulk EQ biosolids. We won't have anywhere to sell bulk EQ biosolids if these rules are put into place. EQ compost facilities in Ohio have sold in excess of 2,500,000 cubic yards of compost without a single documented incidence of pollution and the compost is an accepted, valued commercial product. Application of this isolation criterion will not protect the environment but will end beneficial use. (Bruce Bailey, Schmack BioEnergy)

Response 148:

Table C-1 in the current draft rules does not specify isolation distance requirements from occupied buildings, private/potable water source, medical facilities and/or community public water wells for Class A or EQ biosolids.

Comment 149:

3745-40-08(C)(2) - I think this is a bad idea. What if the person applying biosolids owns a building that someone rents? Does the renter have any recourse? I believe the set backs should be the set backs no matter what. (Kevin Czajkowski, University of Toledo)

Response 149:

Paragraph (C)(2) will be revised to clarify that the allowance for a smaller isolation distance must be approved by the person living in the occupied building.

Comment 150:

3745-40-08(C)(2) - We would like to request that if the reduced isolation distance for biosolids users were to go into effect, that all land application approvals previous to a certain date be "grandfathered" into the system without having to request potentially thousands of new director-authorized site isolation reduction forms. The rule could read as follows:

(2) The director or an authorized representative may allow the reduction in isolation distances for those occupied buildings that are owned by the person beneficially using biosolids. A request for an isolation distance reduction shall be made on forms approved by the director. Any site approval issued before (date) shall be allowed to keep a 100 foot isolation distance from an occupied building or private potable water source if they belong to the person beneficially using the biosolids, provided the product be either injected or immediately incorporated. (Tom Abraham, Agri-Sludge, Inc.)

Response 150:

The isolation distance requirements were developed to be protective of human health. It is Ohio EPA's goal to ensure that the beneficial use of biosolids includes best management practices. Both new and existing sites will need to adhere to the same isolation distance requirements.

Comment 151:

3745-40-08(C)(2) - This should prove to make our contract farmer happier if he consents to a shorter isolation distance, perhaps fifty feet instead of three hundred feet from an occupied building. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 151:

Ohio EPA agrees.

Application Restrictions – OAC Rule 3745-40-08

Comment 152:

3745-40-08(A)(2) - Years ago, before the 503 regulations, Ohio EPA utilized a table that listed requirements for both liquid and dry sludge. Basically, there were more restrictions on the liquid sludge than the driest sludge. It seems to me to make more sense to adopt a similar table of restrictions based on percent total solids or on a case by case basis because I feel our results of testing the biosolids are complete and sufficient to protect human health and our environment. Most of us are wastewater treatment plant superintendents that are challenged every day to meet all other regulatory requirements such as EPA, OSHA, ADA, USDA, ODOT, etc. Our main goal is to treat wastewater and apply biosolids as best as possible and as economical as possible to meet all regulations from the federal government down to the local level. Our expertise and time is limited. I have a Bachelor of Science degree and sometimes struggle to determine or find the proper guidance to satisfy all the regulations. I am sure I am not alone and other treatment plants may not be operated with the same level of education. How this relates to Willard is that we land apply to sites at a rate of less than five dry tons per acre. We use a conventional farm tractor and Knight spreader to land apply our biosolids. Most of the times we are operating the tractor in first gear and still only apply less than five dry tons per acre. In fact, most sites we apply much less. For example, in 2005, our average amount of biosolids applied onto all sites was 2.1897 dry ton per acre. It seems to make more sense for Ohio EPA to allow us the maximum of five dry tons per acre since we meet the agronomic rate of nitrogen and apply less than five dry tons per acre. Another possibility is for Ohio EPA to mandate to the eighty eight counties of the State to derive, compile and publish the required EPA information on the agronomic rate of nitrogen and available phosphorus for each soil type, etc. within the respective County. Another reason for requesting a case by case basis to apply no more than five dry tons per acre and not have to perform all the redundant calculations has to do with methemoglobinemia, commonly referred to as "blue baby". Huron County had no cases of this illness for at least the past ten years and probably longer. Raw pig, horse, and cow manure from various farmers probably contains more nitrogen than our type of biosolids. The farmers that I am familiar with are not being regulated on their manure application, other than perhaps odor. Once again, it seems more practical to use the no more than five dry tons per acre on a case by case basis to determine compliance with the agronomic rate of nitrogen. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 152:

At a minimum, the draft rules must comply with 40 CFR Part 503, which requires agronomic calculations to be performed for all Class B biosolids land application.

Comment 153:

3745-40-08(A)(4) - The language with regard to the available water holding capacity of the soil should be changed to match the language in the Ohio NRCS waste management practice standard 633:

(4) Special requirement regarding liquid bulk biosolids. The beneficial use of liquid bulk biosolids shall be at or below the agronomic rate for the reasonably expected yield or at or below the available water capacity of the upper 8 inches of soil, whichever is less at the time of beneficial use.

(Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 153:

The rules will be revised, as requested.

Comment 154:

3745-40-08(B) - Prohibits land application of bulk biosolids in certain circumstances. Ohio EPA should supplement the rule to prohibit land application when soil at the land application site is saturated. (John Colletti, USEPA Region 5)

Response 154:

The draft rules will be revised to include the following beneficial use prohibition:

“Where soil conditions are saturated at the beneficial use site.”

Comment 155:

3745-40-08(B)(1) - Prohibits land application of bulk biosolids when there is at least a 50 percent chance that one-half inch of rain will occur within 24 hours after land application. In an enclosure to an April 4, 2007, letter to the Ohio Department of Agriculture (copy previously provided to Mr. George Elmaraghy), EPA Region 5 showed that a quantity of rain smaller than one-half inch can generate runoff from Hydrologic Soil Group (HSG) D soils. We recommend that Ohio EPA supplement draft rule (B)(1) so it prohibits land application of bulk biosolids on HSG D soils when there is at least a 50 percent chance that one-quarter inch of rain will occur within 24 hours after land application. (John Colletti, USEPA Region 5)

Response 155:

The draft rule will be revised as requested. A list of Ohio's soils and the corresponding HSG can be found at the following web link:

http://www.oh.nrcs.usda.gov/technical/soils/OH_hsg.pdf

Comment 156:

3745-40-08(B)(1) - We would like to amend this rule to add “unless injected or immediately incorporated.” be put at the end of sentence (1) one to read as follows:

(1) During a precipitation event or when the forecast indicates that there is at least a fifty per cent chance that one half inch of rain will occur within twenty-four hours after land application, **unless injected or immediately incorporated**. The forecast consulted shall be for the zip code where the land application site is located and shall be printed out or otherwise recorded and kept on file for each land application event;

The reason for this request is as follows: After having spent several years watching weather forecasts for Agri-Sludge, Inc., we have found that more often than not, the weather forecast is incorrect. Also, one half inch of rain in the summer months can be insignificant as opposed to the spring time when the ground is marginal. Therefore, by adding the addition of injection or immediate incorporation, it does not take away another potential land application day, those of which are shrinking more and more as the rules change. (Tom Abraham, Agri-Sludge, Inc.)

Response 156:

The rule will be revised, as requested.

Comment 157:

3745-40-08(B)(1) - This rule should be removed or revised. It is assumed that this rule was established to prevent runoff or leaching of biosolids from a land application event. Methods of land application, topography, proximity to rivers and streams, and the physical characteristics of the biosolids that are being land applied have an impact on the potential of leaching. All vary a great deal throughout the state of Ohio. Biosolids should be land applied in such a manner that leaching doesn't occur regardless of the forecasted precipitation. If one half inch of rain does not create a potential leaching problem, then it should not be a limiting factor for the land application of biosolids. (John Motycka, Superintendent, American-Bath WWTP)

Response 157:

The rule will be revised as requested.

Comment 158:

3745-40-08(B)(1) - I feel that there are weather forecasts that are inaccurate on many occasions and also times where weather differs from one small area to another. Suppose a weather front breaks up or moves north or south of a farm in question. You should allow more flexibility, not restrict an entire area code to a particular weather forecast and leave it to the applicator on site to make a

decision as to if conditions are acceptable. (Tony Hoholski, Superintendent, Black River WWTP)

Response 158:

The rule will be revised as requested.

Comment 159:

3745-40-08(B)(1) - The City also objects to dependence on weather forecasters. The requirement of no land application when there is a 50% chance that rain may reach 1/2 inch within 24 hours, is very restrictive. This regulation, in conjunction with the prohibition of application to frozen ground, is extremely restrictive and may require up to 9 months of biosolids storage. In addition, the information must be kept on file. The expense of additional 5 years of precipitation data again complicates this process and acts as a deterrent instead of encouraging recycling. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 159:

The rule will be revised as requested.

Comment 160:

3745-40-08(B)(1) - What difference does it make if a ½” precipitation event occurs within 24 hours or within one week of land application? This seems reasonable not to apply during precipitation, but in practice the application may be in process for 8 hours before precipitation event begins. Precipitation could be forecast for several days, prohibiting application, yet no precipitation ever occurs on those days. This draft rule reduces productivity with no apparent benefit. We would recommend a clearer definition on what documentation needs to be collected to prove that an applicator has complied with this rule. (OWEA Residuals Management Committee)

Response 160:

The rule will be revised as requested in comment.

Comment 161:

3745-40-08(B)(1) - This requirement prohibits application during precipitation events and when there is a forecast of rain. This prohibition as written is impractical. To make this prohibition workable will require several things. First, precipitation event needs to be defined. Biosolids land application takes place on farm fields in agricultural areas in the changeable Ohio weather. Precipitation can occur in many ways. There are brief summer showers, light mists, pop up thunder showers etc. Many of these “precipitation events” would be of such a low intensity and duration that there would be little if any risk of runoff occurring from the site. What does the agency intend by the term “precipitation event.”? A light mist during an application on a dry field should not require that operations cease.

Second, consulting a forecast needs to be further developed in order to make it practical. The comment references an hourly weather graph that shows the forecast for approximately the next 48 hours. If this is to be used, how often does this need to be printed and how current does it need to be to the land application. Can this be printed every couple of days to cover the next 48 hour period or does it need to be updated every hour? (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 161:

The rule will be revised as requested. In addition, the following two comments will be added for clarification:

“[Comment: A precipitation event does not include insignificant amounts of precipitation, such as a misting, fog or light snow flurries.]”

“[Comment: Regarding the hourly weather graph, typically, a printout obtained every forty-eight hours would be sufficient for record keeping purposes. However, there may be those times when significant weather changes occur in a short amount of time and to protect public health and the environment a concerted effort should be made to have as accurate information as possible.]”

Comment 162:

3745-40-08(B)(3) - It is unclear how karst areas are defined and the limits of prohibition on land application. Are these areas well defined so that a sink hole on a farm doesn't completely eliminated cropland on the entire farm? Is the definition for karst area in this draft rule that same as that referenced in ODNR rules? (OWEA Residuals Management Committee)

Response 162:

The Ohio Department of Natural Resources has released a map of probable karst areas that Ohio EPA will reference for enforcement of this requirement. This map may be accessed at the following web address: <http://www.dnr.state.oh.us/Portals/10/pdf/karstmap.pdf>. The definition of karst area will be revised.

Comment 163:

3745-40-08(B)(3) - The draft rule includes a complete prohibition on land application of bulk biosolids in a karst area. We question the rationale for this requirement. First, the rule does not provide to us what is considered a karst area. Karst area is defined in this rule but the prohibition is against a karst area as defined by the Ohio department of natural resources or the Ohio environmental protection agency division of drinking and groundwater.

Protections are already in place including, agronomic rate application, depth to bedrock restrictions, buffers from sinkholes and other buffers that address the potential for movement of biosolids or biosolids nutrients applied at an agricultural site. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 163:

The Ohio Department of Natural Resources has released a map of probable karst areas that Ohio EPA will reference for enforcement of this requirement. This map may be accessed at the following web address: <http://www.dnr.state.oh.us/Portals/10/pdf/karstmap.pdf>. The definition of karst area will be revised.

Comment 164:

3745-40-08(B)(3) - Determinations related to Ohio's geology are made by the Ohio Department of Natural Resources, Division of Geologic Survey. The reference to DDAGW should be removed from the paragraph, which should read: Within a karst area, as defined by the Ohio department of natural resources ~~or the Ohio environmental protection agency division of drinking and ground water;~~

Response 164:

The rule will be revised as requested.

Comment 165:

3745-40-08(B)(4) - Emergency management zone – what about upstream, why is this protective of a water source? Public water system – many of the terms are undefined i.e. additional engineering and management control in the application program's design and operation. What does that mean? Shouldn't Ohio EPA just say 300 feet from a potable water well here rather than this complicated language that includes a buffer of only 50 feet from a potable well. The burden of identification of these sites is fully on the land applier to identify these areas such as class V UIC injection wells and public water supply wells. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 165:

With regard to the comment about emergency management zones, the rule includes language in accordance with the Division of Drinking and Ground Water rules. With regard to the comment about public water systems, the rule currently includes language as you have suggested.

Comment 166:

3745-40-08(B)(4)(Row 3, Column 2 of Table) - As written, the text omits recommended setbacks for land application of biosolids from "Recommended Setbacks for Human and Animal Waste Management near Drinking Water

Supply Wells and Intakes". DDAGW recommends the definition be modified to read:

Three hundred feet from the water supply well if the material is not injected or otherwise incorporated into the soil within twenty-four hours of application. ** One hundred feet from the drinking water supply well if the material is not injected or otherwise incorporated into the soil within twenty-four hours of application and a vegetative buffer is installed and maintained around the well. ** Fifty feet from the drinking water supply well if the material is injected or otherwise incorporated into the soil within twenty-four hours of application and the separation distance meets all the isolation standards the public water system must maintain. (Ohio EPA DDAGW)

Response 166:

The rule currently includes an isolation distance requirement of 300 feet and will remain unchanged for ease of understanding compliance.

Comment 167:

3745-40-08(D)(5)(a) - Section (a) of this rule discusses utilizing soil phosphorous levels to guide the land application of biosolids. The current definition of beneficial use, agronomic benefit and agronomic rate refer to nitrogen concentration serving as the basis for the determination of biosolids land application rates. As stated in an earlier comment, a modification of the agronomic rate definition to remove the reference to nitrogen would make these sections consistent. (Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

Response 167:

The rules will be revised as suggested in Comment 172.

Comment 168:

3745-40-08(D)(5)(a)(ii) - Provides that land application shall cease until such time as soil phosphorus test results are less than or equal to 150 ppm (Bray-Kurtz P1) or 170 ppm (Mehlich 3). As indicated in the *Nitrogen and Phosphorus Risk Assessment Procedure* (Ohio Natural Resources Conservation Service 2001), a high potential for nutrient transport exists when a soil test is used as the risk assessment procedure and the results show 100 or more ppm phosphorus (Bray-Kurtz P1) in the soil. In light of this risk, we recommend that Ohio EPA supplement rule (D)(5)(a)(i) to provide that the biosolids application rate shall be limited to one year crop needs for phosphorus where a soil test is used as the risk assessment procedure and the results show more than 100 ppm but less than 150 ppm phosphorus (Bray-Kurtz P1) (or the Mehlich 3 equivalent). Supplementing the rule in this way will hold persons who land apply biosolids to

the same standard that applies under Ohio EPA's general permit for CAFOs. (John Colletti, USEPA Region 5)

Response 168:

The rule will be revised as suggested.

Comment 169:

3745-40-08(D)(5)(a and b) - In past proposed or draft EPA regulations, I had asked for three years between soil tests. It was ignored by Ohio EPA, but I was promised by Ohio EPA that the next time draft regulations were issued, it would be changed to three years instead of two years. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 169:

In light of revisions to soil phosphorus level requirements and application restrictions, Ohio EPA feels it is necessary to maintain a testing frequency of every two years for soil phosphorus monitoring.

Frozen/Snow-Covered Ground - OAC Rule 3745-40-08

Comment 170:

3745-40-08(D)(2)(a) - We are requesting that the rule be amended to eliminate (2)(b), change the ground cover status to liquid only, and also change the isolation distance from 200 to 100 feet, and change the slope from 6 % to 2 %. The rule could read like this then:

(a) Except as provided in paragraphs (D)(2)(a)(i) to (D)(2)(a)(iv) of this rule, no person shall beneficially use bulk biosolids on land that is frozen or snow-covered.

(i) At the time of application of liquid biosolids, the agricultural land shall have no less than ninety per cent ground cover; and for any land applied biosolids, the ground cover shall not be completely covered by ice or snow;

(ii) Liquid biosolids shall not be surface applied at a rate that exceeds five thousand gallons per acre to frozen or snow covered ground;

(iii) No person shall surface apply biosolids on more than twenty contiguous acres. Beneficial use areas shall be situated as far from waters of the state as possible, but no closer than one hundred feet, and present the least potential for runoff; and

(iv) No person shall surface land apply biosolids to frozen or snow covered agricultural land with a slope greater than two per cent.

The reason for this is request is that reputable land application companies don't want biosolids to run off during a thaw either. But for three reasons in particular, we would like you to consider revising this statement:

- 1- **It is so hard to find good employees.** Once you find them, how do you tell them they may only work 8 months a year. They have family obligations as well, and can't afford to work for 8 months a year. Days off in the winter are inevitable in this business, but months off are extremely difficult. Therefore, the quality of the employee to apply the product will go down, so the quality of workmanship will go down as well, compromising the program 12 months out of the year instead of when it is frozen or snow covered.
- 2- **It costs lots of money to build more storage. Because of this, more and more treatment facilities are reverting to landfills as opposed to following new rules as they come out, nor are they building more storage.**

The rules themselves now want to state that a contract with a landfill may be suitable as storage, yet nobody wants to believe that we are reverting to filling up our landfills. The fact is that since the last rules change, 20 of our land application facilities have gone the route of the landfill. 7 liquid projects now haul to another facility for de-watering and landfilling. Another 13 cake projects now haul to landfill full-time and no longer land apply. Of those 20 facilities, 6 have upgraded or rebuilt their plant and only two of them added more storage that they utilize. Therefore, the record is speaking for itself. That landfilling is a more viable option to many facilities any more. The problem with landfills is the reputability and capability of them to stay open, especially in Northeast Ohio. Just in the last couple of years BFI in Deerfield, Central Waste in Alliance and World Resources in Holmes County all closed. BFI is still closed. Central Waste has since reopened but does not take municipal biosolids at this point. Note that Central Waste closed Agri-Sludge, Inc. down almost one year before their official closing so that they could take in the high dollar Out-of-State wastes that they were receiving instead of customers like us. When World Resources in Holmes County reopened, they stopped taking out-of-county biosolids. Presently, Holmes County makes no cake biosolids, so henceforth; World Resources no longer takes municipal biosolids. Agri-Sludge, Inc. also deals with landfills that have met daily volume quotas, meaning they must turn trucks away at the gate once they receive their daily volume allowance. Those being Waste Management Geneva and World Resources Holmes County. I will assume that all landfills have daily volume quotas, but the reason we know about these two facilities is because we have had truckloads of cake biosolids turned away at the door because they have met their daily quotas. As we all know, most all cake product that is being produced in Ohio is either land applied,

- composted or landfilled presently. If this ban were to take effect, a significant portion of this land-applied product will probably be detoured to landfills. With the recent events with Countywide landfill having been on fire underground and Waste Management Geneva having accepted hazardous waste, other sources may be disappearing soon as well. Another problem is the Columbus landfill, which will only take product generated from within Franklin County. Also realize that NEORSD Southerly WWTP produces an immense amount of cake biosolids that has been getting trucked all the way to Ottawa County for years because local landfills have been incapable of handling the product. We must also consider how hard it is becoming to get a new landfill permit in this State. To the best of my knowledge, it takes more than 10 years to accomplish the task of successfully opening a landfill. I have personally been in this business for 15 years now, and have yet to see one new landfill open up in Northeast Ohio, but I have watched a lot of them struggle to stay open.
- 3- **We are asking that if the federal rules are followed, that they would at least allow land application for all class "A" and "B" cake biosolids** that meet or exceed paint filter tests for water leakage, their CPLR metals, pathogen, and vector requirements. To the best of our knowledge, all of the issues of groundwater contamination on frozen or snow-covered ground have been by application of liquid biosolids or by animal manure applications. Agri-Sludge, Inc. still believes that if the rules for liquid application were followed properly, this would not have happened, but it has. Because of these concerns, we understand the EPA wanting to deny land application of liquid during these periods of the year. Unfortunately, we would also now be punishing Villages and Cities that have gone to the trouble, time, effort, and financing to make a safer product. We would also be filling up our landfills faster with a wonderful fertilizer product that is being successfully used all over the country, knowing that our landfills are having a hard enough time handling the products that are presently mandated to go into their facilities. I believe the original intent of this biosolids program of land application was to utilize all the clean treated fertilizer on the land, so that it would not continue filling up our landfills. Since we are supposed to be a country set on changing the course of our wasteful fathers and recycling more products rather than throwing them away, let us keep at least the application of cake biosolids on frozen or snow covered ground. (Tom Abraham, Agri-Sludge, Inc.)

Response 170:

OAC Chapter 3745-40-08(D)(2)(b) will be removed as requested. The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and

snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 171:

3745-40-08(D)(2)(a) - I am a certified crop advisor and current user of Class B biosolids both on my farm and client's land. I feel the proposed restrictions on frozen ground application and rain event situations will cripple the use of biosolids. This will put a further burden on municipalities to construct additional storage facilities, contractors who spread, and farmers that receive the product. It will force more Spring spreading when soils are wet and soft, and significant compaction will occur. I feel the current set-back restrictions with sufficient ground cover and slope, used with care, are safe. Agronomic use of biosolids in the current high cost environment farmers operate in needs to be encouraged without excessive restrictions. (Stuart Newcomer, independent crop consultant)

Response 171:

The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 172:

3745-40-08(D)(2)(a) - The proposal of prohibiting bulk biosolids application to frozen or snow covered lands is problematic. First, is there a definition of "frozen"? Where in the soil horizon is the temperature to be measured? It is possible for the top two inches on soil to not be frozen, while the next-lower several inches could be frozen. Does this scenario meet the definition of being "frozen"? The rule should be amended to allow application of bulk biosolids to frozen land "provided best management practices to minimize the reasonable potential for runoff" are adopted. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 172:

The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated

or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 173:

3745-40-08(D)(2)(a) - The practice of land applying to frozen ground has been done for over 30 years with no real problems in the state. I have seen one case of an issue and it should have been stopped. I have seen issues from concentrated animal feeds lots with the raw chickens manure but this is a much different product with high levels of nitrogen and phosphorus spread around the same location. This will not encourage beneficial reuse just more land filling if they will accept it at this time of year. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 173:

The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 174:

3745-40-08(D)(2)(a) - By not allowing the spreading of sewage sludge on frozen or snow-covered ground you will effectively render a large portion of the yearly growing season useless for land application. It is this time of year when the farmers can utilize the season in-between growing crops to work the sludge into or on the ground. I feel that there are two points to the new proposed regulations that may hinder if not adversely affect the spreading of class B sewage sludge on farmland. I feel that it will impose an unnecessary burden on the communities that are already having difficulty managing disposal costs of sewage sludge. It will force communities to build additional storage facilities and invest in odor controls that are not necessary. (Tony Hoholski, Superintendent, Black River WWTP)

Response 174:

The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated

or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 175:

3745-40-08(D)(2)(a) - is objected to as having no scientific basis with relation to the City of Marion's lime solids. Past experience shows the material is present in solid form until broken up by Spring planting. The inclusion of this prohibition will result in additional storage facilities to cover late November, when the ground freezes, until late June or early July when the wheat is harvested. This is approximately nine months; because the ground will be either frozen, wet or being worked for planting. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 175:

The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 176:

3745-40-08(D)(2)(a and b) - The proposed rule provides that no person shall beneficially use bulk biosolids on land that is frozen or snow covered. This language is problematic in that the definition of beneficial use includes any placement on the ground, this would include storage. This definition is also problematic because frozen and snow covered ground is not defined in the rule and any proposed definition leaves much interpretation to the land applier in the field. We would propose different language that we believe addresses the key public health and environmental concern for land application of nutrients in materials such as biosolids on land that is frozen or snow covered. The time of highest risk for runoff of these nutrients to surface water is during the time when the soil is frozen and does not allow the water and nutrients to infiltrate into the root zone of the crop.

Response 176:

OAC Chapter 3745-40-08(D)(2)(b) will be removed. The surface application of biosolids on frozen or snow covered ground will be prohibited between

November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 177:

We propose the following language for consideration in place of 3745-40-08 (D)(2) (a) and (b):

(a) Except as provided in paragraph (D)(2)(c) of this rule, no person shall land apply bulk biosolids during the time period when the local climate normal mean average temperature is less than 34 degrees Fahrenheit.

(b) Biosolids land applied to frozen or snow covered ground at any time shall be applied in accordance with natural resources conservation service waste utilization code six hundred thirty-three, including but not limited to the following requirements:

[Comment: This natural resources conservation service waste utilization code six hundred thirty-three can be found at the following web link: <http://efotg.nrcs.usda.gov/references/public/NE/NE633.pdf>.]

(i) At the time of application, the agricultural land shall have no less than ninety per cent ground cover and ground cover shall not be completely covered by ice or snow;

(ii) Liquid biosolids shall not be applied at a rate that exceeds five thousand gallons per acre;

(iii) No person shall surface apply biosolids on more than twenty contiguous acres. Beneficial use areas shall be situated as far from waters of the state as possible, but no closer than two hundred feet, and present the least potential for runoff.

(iv) No person shall surface land apply biosolids to frozen or snow covered ground with a slope greater than six percent.

(c) The director or an authorized representative may authorize an emergency application during the time period in paragraph (D)(2) (a), provided the request for authorization demonstrates that biosolids disposal or transfer to another NPDES permitted treatment works is not available.

Comment: Information on the Daily Climate Normals for a location can be found at the United States department of commerce national oceanic and atmospheric

administration website: <http://www.noaa.gov/> by entering a zip code and then checking the local climate. The report of the Daily/Monthly Normals of a location for the Avg temperature can be generated under the NOAA Online Weather Data (NOWData) Tab. This report can be generated once for a particular location to determine the latest and earliest application dates for the year. The above changes accomplish the goals of Ohio EPA by prohibiting application during the time of the year when a local climate would experience frozen or snow covered ground. This also protects against the runoff of nutrients during this time frame by minimizing the loss of applied nutrients during the period of impermeable frozen ground. We believe this accomplishes the goals of Ohio EPA and presents biosolids land appliers with a workable framework.

(OWEA Residuals Management Committee/Bruce MacLeod, Technical Service Director, Synagro Central, LLC)

Response 177:

OAC Chapter 3745-40-08(D)(2)(b) will be removed. The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. In addition, the rules will also be revised to remove the emergency authorization language. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 178:

-3745-40-08(D)(2)(b) - Says that Ohio EPA may authorize an emergency application to frozen or snow-covered ground, provided that the person who seeks to land apply demonstrates that biosolids disposal and transfer to another NPDES permitted treatment works is not available. EPA Region 5 recommends that Ohio EPA revise the rule to exclude solid biosolids (i.e., less than 50 percent moisture) from the emergency application allowance. One reason for this recommendation is that solids may be stockpiled as an economical means for temporary storage. For semisolid or liquid biosolids (i.e., greater than 50 percent moisture), we recommend that Ohio EPA revise the rule to provide that the person must also:

- a. have adequate storage design capacity, including capacity greater than 120 days where necessary based on local climate, so it is not necessary to land apply on frozen or snow-covered ground,
- b. operate and maintain the storage consistent with the requirements in Part IV, E of Ohio's NPDES general permit for concentrated animal

feeding operations (CAFO) (NPDES Permit No. OHA000001, expiring January 31, 2010), and

- c. monitor the land application site and report to Ohio EPA consistent with the requirements in the paragraphs that follow Part VI, B, 2, 5. f. of Ohio's CAFO general permit.

Lastly, Ohio EPA should revise section (D)(2)(b) to provide that, (1) if the ammonia nitrogen in a water quality sample is 26 mg/L or greater in a discharge at the point it enters waters of the State, then any additional surface application of biosolids to frozen or snow-covered ground is prohibited on the field where the runoff event occurred and (2) if runoff from frozen or snow-covered ground discharges to waters of the State with an ammonia content of 26 mg/L or greater in three or more surface land application events, then surface application of biosolids on any frozen or snow-covered ground is prohibited for that person from that point on. These provisions will make the rule for biosolids application on frozen or snow-covered ground consistent with the general permit for CAFOs. (John Colletti, USEPA Region 5)

Response 178:

OAC Chapter 3745-40-08(D)(2)(b) will be removed. The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 179:

-3745-40-08(D)(2)(b)- The language, as presented in the draft rule sections (D)(2)(b)(i) to (D)(2)(b)(iv), is consistent with the Ohio Department of Agriculture Livestock Environmental Permitting Rules (OAC 901:10) and NRCS Standard 633 Waste Utilization. It is important that there is consistency across all nutrient management programs. The proposed draft rule could be improved by adding language that establishes a clear distinction between surface and subsurface (injection or incorporation) application of biosolids to frozen ground. The following modified language from OAC 901:10 is suggested:

“If biosolids can be injected or incorporated then the land application site is not frozen or snow covered and therefore not subject to paragraph (D)(2) of this rule.”

(Keith Stimpert, Senior Vice President-Public Policy, Ohio Farm Bureau Federation)

Response 179:

OAC Chapter 3745-40-08(D)(2)(b) will be removed. The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Comment 180:

3745-40-08(D)(2)(b)(ii) - Provides that liquid biosolids shall not be surface applied to frozen or snow-covered ground at a rate in excess of 5,000 gallons per acre. We are concerned that application at this rate may generate runoff from frozen ground. We recommend that Ohio EPA revise the rule as follows: "...five thousand gallons per acre to frozen or snow covered ground, or a lesser amount if a lesser amount may produce runoff." (John Colletti, USEPA Region 5)

Response 180:

OAC Chapter 3745-40 - 08(D)(2)(b) will be removed. The surface application of biosolids on frozen or snow covered ground will be prohibited between November 15 and March 15; however, biosolids may still be beneficially used provided that the biosolids are either immediately incorporated or injected. For the remainder of the calendar year biosolids may be applied to frozen and snow covered ground provided the application meets the requirements of OAC Chapter 3745-40. Stockpiling of biosolids on frozen or snow covered ground will still be allowed, provided it is managed in accordance with these rules.

Testing, Recordkeeping, Reporting – OAC Rule 3745-40-09

Comment 181:

3745-40-09 - The draft rules require sampling methods that are consistent with part 503. It is recommended that the draft rules allow for alternative methods be used if approved to be used by part 503. (John Colletti, USEPA Region 5)

Response 181:

The rule will be revised, as requested.

Comment 182:

3745-40-09(B)(2)(a) - states that monitoring is not required if a hauling event does not occur during the reporting period. Part 503 sets minimum monitoring

requirements based on how much sewage sludge is land applied in a 365 day period. The minimum must be met whether land application occurs year round or all at one time. Therefore, this section should still require the minimum monitoring be required. (John Colletti, USEPA Region 5)

Response 182:

The rule will be revised, as requested.

Comment 183:

3745-40-09(B)(2)(b) - This requirement serves to increase the sampling frequency to once per hauling event, which is subjective, rather than the frequency as listed in Table B-4. Again, this requirement attempts to place a one size fits all solution to the monitoring of pathogen and vector attraction reduction. This should be addressed in Rule 3745-40-04 and specifically geared towards the process being used and the amount of biosolids being treated. This would simplify the reading of this chapter because all of the rule information pertaining to a process would be contained in that rule. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 183:

The requirement for sampling prior to each hauling event will be removed as requested.

Comment 184:

3745-40-09(B)(4) - The USEPA performed an extensive testing and analysis of the risk posed from dioxin and related compounds and found that there is not a significant risk and that testing programs such as the current and proposed OEPA rules are an expensive and unnecessary burden on wastewater treatment facilities. (Bruce Bailey, Schmack BioEnergy and Kurtz Brothers)

Response 184:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of sludge and that do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 185:

3745-40-09(B)(4) - The USEPA performed an extensive testing and analysis of the risk posed from dioxin and found that there is not a significant risk and that testing programs such as the current and proposed OEPA rules are an expensive and unnecessary burden on the wastewater treatment facilities. You have also required results above thirty parts per trillion to be tested annually. The OEPA is also now proposing that valves as low as fifty part per trillion be injected

or incorporated until your drop below that value, why? This is another example of poor applied science. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 185:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of sludge and that do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 186:

3745-40-09(B)(4) - Dioxin total toxicity equivalence. USEPA has performed extensive testing and analysis for dioxin (the term "dioxin" includes the 29 congeners in the proposed rule) in land applied sewage sludges from POTWs across the United States. Their findings were there is not a significant amount of dioxin in such wastes that create a significant risk to those that apply the sludge or to those that utilize the lands after land application activities. Again, it appears Ohio EPA's proposal to invoke limitations of 30 and 50 total toxicity equivalent values mimics the former existing effluent quality (EEQ) direct discharger effluent limitation policy of the late 1980's. The proposed values appear to have developed without following a proper risk-based scientific approach, and therefore should be rescinded. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 186:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of biosolids that are land applied and that do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 187:

3745-40-09(B)(4) - I am glad to see Ohio EPA respect my previous 2006 comment about reducing the frequency for testing of dioxin and polychlorinated biphenyls (PCB's) (Section 3745-40-09). This will help my "tight" budget and save our City over \$1,000 per year. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 187:

Ohio EPA will reduce testing frequency when we feel human health and the environment continue to be protected.

Comment 188:

3745-40-09(B)(4) - Annual testing for any POTW with dioxin >30 ppt TEQ limit with no pretreatment program is a very low annual monitoring threshold. The prohibition of land application when TEQ > 50 ppt is very low compared to existing standards in locations that have dealt with dioxins (an example is the 300 ppt limit in the State of Missouri). USEPA has found that dioxins in sewage sludge do not pose a risk to the environment or public health (see Final Action Not to Regulate Dioxins in Land-Applied Sewage Sludge October 2003; EPA-822-F-03-007 from: <http://www.epa.gov/waterscience/biosolids/dioxinfo.html> and American Society of Agronomy (2008, July 16). Dioxin Risk In Sewage-sludge Used On Crops, Plant Tissue Grown On Contaminated Soil. *ScienceDaily*. Retrieved October 9, 2008, from <http://www.sciencedaily.com/releases/2008/07/080714112956.html>). The rule also does not define when after repeated monitoring would land application of the material again be acceptable. We would recommend that the ceiling limit defined in the rule be increased to at least 300 ppt. It also appears to be the intention of OEPA to prohibit biosolids land application when TEQ > 50 ppt, however the rule language exempts a treatment works from section 3745-40-09(B) prohibition when the treatment works has an approved pretreatment program. Does OEPA exempt treatment works with a pretreatment program? (OWEA Residuals Management Committee)

Response 188:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of sludge and that do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 189:

3745-40-09(B)(4) - Dioxin 30 ppt TEQ limit is very low compared to existing standards in locations that have dealt with dioxins such as the 300 ppt limit in the State of Missouri. The USEPA investigated dioxins and concluded that levels were not an issue and did not justify regulation. The 30 ppt limit will eliminate some land application programs. This also does not indicate that an average concentration below would be acceptable. At what point in further testing would a biosolids material be acceptable to land apply? (Dale Kocarek, Vice President, OWEA)

Response 189:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of sludge and that

do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 190:

3745-40-09(B)(4) - We question the rationale for requiring this monitoring for several reasons. First, Ohio EPA has required monitoring under the current rule since April 2002. This existing monitoring has required Ohio municipalities to conduct an estimated 1500 dioxin sampling and analysis events over the past 6 years at a cost of about \$1500, for a total expenditure of 2.25 million dollars. This expensive monitoring program should provide more than enough background data for Ohio EPA. Second, in May of 2003 USEPA announced that, "After five years of study, including outside peer review, the Agency has determined that dioxins from this source do not pose a significant risk to human health or the environment." USEPA additionally concluded that "In summary, the information available today on dioxins exposures, toxicity, and cancer risks supports today's decision that no numeric limits or management practices are required to adequately protect human health and the environment from the adverse health effects of dioxins in land-applied sewage sludge." Since May of 2003 Ohio's municipalities have been saddled with this monitoring requirement that is more stringent than the federal counterpart rule (CFR Part 503). USEPA has concluded that this monitoring has provided Ohio with an insignificant environmental benefit. This requirement is one of many examples in this rule of a requirement that should be rescinded to provide needed flexibility and reduction in regulatory burden at the local level. Instead, we are astounded that Ohio EPA is proposing to decrease local flexibility and increase local regulatory burden by adopting the numeric limits and management practices rejected by USEPA and continuing the expensive monitoring program. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 190:

Ohio EPA feels that this requirement is necessary to protect human health and the environment. The treatment facilities that will be required to monitor for dioxin are treatment plants that produce a fairly large volume of sludge and that do not currently have a pretreatment program. This would currently apply to approximately seventeen treatment plants in the state of Ohio.

Comment 191:

3745-40-09(Table B-4) - This table over simplifies the monitoring frequency schedule. Some pathogen and vector attraction reduction monitoring must be performed daily (each time process is conducted) even though the table suggests that it can be done quarterly or annually. We suggest wording to include a statement, "and as necessary to show compliance with all processing requirements." Acknowledge the potential difference in monitoring frequency

required. (OWEA Residuals Management Committee/Dale Kocarek, Vice President, OWEA)

Response 191:

The rule will be revised, as requested.

Comment 192:

3745-40-09(Table B-4) - This requirement tries to define the monitoring frequency for all pathogen reduction processes and all vector attraction processes for all generators in one paragraph. This is not possible and will lead to problems with implementation, interpretation and enforcement of this rule. The minimum sampling frequency should be as in paragraph (B)(2)(a). However, the goal of the sampling is to assure that all of the biosolids produced meet the regulatory requirements related to land application. Some of the processes require almost continuous monitoring, whereas the testing requirements such as (B)(1) serve as verification that the process being used is meeting the pathogen reduction requirements. The sampling frequency and quantity of samples should be addressed in rule 3745-40-04 – Biosolids classifications. This sampling frequency should be specific to each pathogen and vector attraction reduction alternative used. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 192:

Please see Comment and Response number 195.

Comment 193:

3745-40-09(C)(2) - Requires recordkeeping for bulk EQ. The trigger quantity for this is 50 cubic yards or less than one semi-load. This is a cumbersome and costly burden that will impede beneficial use. (Bruce Bailey, Schmack BioEnergy)

Response 193:

The Agency proposes to revise the definition of “bulk biosolids” to:

(K) "Bulk biosolids" means:

- (1) Any quantity of class B or class A biosolids; or
- (2) Greater than one thousand cubic yards of exceptional quality cake biosolids applied to a single beneficial use site; or
- (3) The beneficial use of exceptional quality biosolids at rates equal to or greater than ten dry tons/acre at a beneficial use site.

Comment 194:

3745-40-09(D) - Should ensure that the applicable certifications required by 3745-40-09 be submitted with the annual report. (John Colletti, USEPA Region 5)

Response 194:

The rule will be revised, as requested.

Facility Storage – OAC Rule 3745-40-10

Comment 195:

3745-40-10 - It is unclear as to whether 120 days of storage is still required if alternative (B)(4) is approved. Section (A) appears to only allow exceptions provided by alternatives (B)(1) to (B)(3). (John Colletti, USEPA Region 5)

Response 195:

Paragraph (B)(4) will be removed.

Comment 196:

3745-40-10(A)(2) - The storage requirement should be specified to be over and above the processing capacity. This storage tank or facility should be dedicated for storage, not used up with process capacity. (OWEA Residuals Management Committee)

Response 196:

Ohio EPA does not believe this is economically feasible at this time, but will add a comment to recommend that storage be separate from treatment in the rule.

Comment 197:

3745-40-10(A)(2) - It should be made clear that the facility storage capacity shown needs to be the additional volume above what is needed to provide the design solids treatment at the facility. If digestion capacity is for 60 days of the design flow and 40 days is needed for treatment then only 20 days of effective storage capacity should be counted. There should also be some consideration as to the final form of the sewage sludge as it leaves the treatment works. For example, if a treatment works has 120 days liquid storage but no cake storage and the sewage sludge is hauled to a landfill daily as a cake then it should be clear that there should be effective liquid storage available to hold any unexpected backlogs in cake handling. A treatment works should be required to provide storage in the form in which the biosolids will be removed from the plant, that is liquid if liquid will be removed, cake if cake will be removed; unless dewatering capacity is provided that the treatment works is designed to be able to dewater process. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 197:

Ohio EPA does not believe this is economically feasible at this time, but will add a comment to recommend that storage be separate from treatment in the rule.

Comment 198:

3745-40-10(A)(2)(b) - The Draft Rules should clarify the difference between sludge “process” tanks and sludge “storage” tanks, and under what conditions that “process” tanks be considered for “storage.” (Dale Kocarek, Vice President, OWEA)

Response 198:

Ohio EPA does not believe this is economically feasible at this time, but will add a comment to recommend that storage be separate from treatment in the rule.

Comment 199:

3745-40-10(A)(2)(d) - The Draft Rules discuss options for sludge storage. We suggest that they better clarify if open beds must be covered. My experience has revealed that Ohio EPA reviewers have different interpretations of what is considered as acceptable storage; some insist that beds be covered, while other reviewers do not. A bit more clarification may be necessary to minimize confusion. (Dale Kocarek, Vice President, OWEA)

Response 199:

Currently these rules do not address design standards. However, Ohio EPA may consider including design standards in future rules.

Comment 200:

3745-40-10(B) - What is meant by an effective contract? If Ohio EPA approves an alternative to facility storage of sewage sludge the treatment works should be able to show that the approved alternative will be available throughout the effective term of the NPDES permit. Many Ohio treatment works have existing land application contracts with biosolids land appliers that require them to manage the treatment work’s biosolids with the contract enforceable through performance bonding and liquidated damages. It is suggested that the same standard of effectiveness be required for alternatives to facility storage. It should also be made clear that the facility storage requirement applies to all treatment works not just to treatment works that choose to land apply their sewage sludge or biosolids. We suggest the following language:

The director or an authorized representative may approve alternatives to the facility storage of sewage sludge or biosolids through:

- (1) An effective contract with a landfill showing that the landfill will accept up to the design volume of the treatment works sewage sludge during the effective dates of the treatment works NPDES permit.*
- (2) An effective contract with another permitted facility showing that the*

permitted facility will accept up to the design volume of the treatment works sewage sludge during the effective time of the treatment works NPDES permit.

(3) Ownership or leasing of, or effective contract with, a regional storage facility showing that the regional storage facility will accept up to the design volume of the treatment works sewage sludge during the effective time of the treatment works NPDES permit.

(4) Ownership or leasing of, or effective contract with a sewage sludge or biosolids incinerator that will accept up to the design volume of the treatment works sewage sludge during the effective time of the treatment works NPDES permit.

An effective contract must show the consequences for any party that should choose to disregard the contract. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 200:

The rule will be revised, as requested.

Comment 201:

3745-40-10(B)(1) - This requirement choice should be changed to a profile and approval to landfill at two different landfills. We have put out bids before with solid waste and there was no interest in a contract at the last bid two years ago. (Dave Brewer, Biosolids Manager, Montgomery County Sanitary Engineering Department)

Response 201:

Ohio EPA feels that requiring approvals from two landfills could be burdensome to some operators. As such, the rule will not be revised.

Comment 202:

3745-40-10(B)(4) - This rule should be amended to state that the land applier must comply with all the rules outlined in this contained document and that liability for the conformation to these rules should lie with the Generator/Permittee as well as the land applier. Maybe the rule could read as such:

(4) An effective contract with a land applier that states that they will remove material on an as-needed basis. The effective contract shall in no way compromise, nullify or exempt a Generator/Permittee or the land applier from the rules of this 3745 document.

The reason for this is that some Cities and Villages have used the excuse that because they have a contract with a land applier, that the land applier has to

remove product at their own expense, regardless of rules, weather or whatever, because of a signed contract. It has also been said that if the hauler won't don't do it, they will fire them, go after their bond, and get another hauler that will haul now. Several Generators have adequate storage as well, but because it may be "a hassle to store", they quote the contract obligation as well. Don't get me wrong, most of the Generators we work with are very understanding on this matter, but there are others who are not so understanding. So maybe a little loophole protection might be called for regarding this statement. (Tom Abraham, Agri-Sludge, Inc.)

Response 202:

The rule will be revised in accordance with Comment and Response number 204.

Comment 203:

3745-40-10(B)(4) - Contracts that state, "remove material on an as-needed basis." are not practical and do not cover all situations, even when the clause is included. We would recommend that this statement be removed from the rules. (OWEA Residuals Management Committee)

Response 203:

The rule will be revised in accordance with Comment and Response number 204.

Signage – OAC Rule 3745-40-11

Comment 204:

3745-40-11(A)(1) - Signage requirement of posting one week prior to application will delay biosolids applications unnecessarily when a farmer changes his mind about which field to apply. Many factors will shift application plans in the spring, resulting in last minute changes to the site selected. This change by the farmer may result in canceling the order. (OWEA Residuals Management Committee)

Response 204:

To address this comment, Ohio EPA would suggest that a sign be posted at each beneficial use site. Posting a sign at each site would eliminate the need to delay a beneficial use event.

Comment 205:

3745-40-11(A)(1) - I wish to request that the one-week advance posting of Class B signs be changed to just prior to land application. My contract farmer some times does not give me that much notice, or some times has changed which approved site he wants biosolids land applied. In other words, the field of choice

may still be wet in spots and he decided for us to land apply on a drier site.
(Stephen Koch, Superintendent, City of Willard WPCP)

Response 205:

To address this comment, Ohio EPA would suggest that a sign be posted at each beneficial use site. Posting a sign at each site would eliminate the need to delay a beneficial use event.

Comment 206:

3745-40-11(A)(1) - Implementation of this requirement to post signs at the fields one week before operating would be problematic and expensive. (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 206:

Ohio EPA feels that the general public should be notified at least one week in advance of the beneficial use of biosolids. In addition, Ohio EPA does not understand how posting signs one week prior to the beneficial use of biosolids could be problematic or expensive.

Comment 207:

3745-40-11(A)(1) and (C) - The requirement to erect approved signage one week prior to delivery of biosolids is unreasonable. Often, plans for delivery change based on field availability, weather and access conditions, and biosolids quality (pH). Signs are not required for the application of man-made chemicals and manures that often create significant nuisance complaints. Therefore, signs that announce the planned application of a 100% properly treated organic material that has been treated for vector and pathogen reduction should not be required. Paragraph (C) should also be rescinded, or at least the time frame for keeping signage post-application should be reduced to seven days. (Mark Livengood, Superintendent of Water Reclamation, Montgomery County Sanitary Engineering Department)

Response 207:

To address this comment, Ohio EPA would suggest that a sign be posted at each beneficial use site. Posting a sign at each site would eliminate the need to delay a beneficial use event.

Comment 208:

3745-40-11(A)(1) and (C) - The City objects to requiring signage for material that is mostly sterile. The one week prior and thirty days after application may result in revocation of the City NPDES Permit if not adhered to. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 208:

To address this comment, Ohio EPA would suggest that a sign be posted at each beneficial use site. Posting a sign at each site would eliminate the need to delay a beneficial use event.

Comment 209:

3745-40-11(A)(5) - I am glad to see Ohio EPA finally change the wording of sludge to biosolids to reflect a more positive image and eliminate the negative connotation associated with sludge. I will have no problem changing the wording on our Class B signs. (Stephen Koch, Superintendent, City of Willard WPCP)

Response 209:

Thank you.

Comment 210:

-3745-40-11(B and C) - The terms for sites with a high potential for public exposure and a low potential for public exposure were defined in this rule. Those definitions need to be used here. The draft rule language inserts new language that requires subjective interpretation. What is meant by a site that "could have a high potential for public exposure." (Bruce MacLeod, Technical Services Director, Synagro Central, LLC)

Response 210:

The rule will be revised, as requested.

Nuisance Odors and Compliance Enforcement – OAC Rule 3745-40-12

Comment 211:

3745-40-12 - For a period of 18 months, from January 1, 2009 to June 30, 2010, I would like to see a requirement in the rules to submit (on forms approved by the OEPA) all complaints received regarding alleged health effects or affects on quality of life to the OEPA from generators, applicators, local and state health departments, Soil and Water Conservation Districts, and other stakeholders. Justification: The Franklin County Board of Health and other grant partners including the OEPA have received \$392,000 from the Water Environment Research Foundation (WERF) to test an investigation protocol for complaints about health effects from neighbors of land application sites. In order for the grant to be successful, there needs to be a system in place statewide to collect and manage these complaints for at least the timeframe of the grant or longer. Besides testing the investigation protocol, data collected on health complaints will help the USEPA to further study the relationship between land application and health effects. The OEPA is playing a significant role in this grant and these additional requirements will have an impact on the understanding and prevention

of health affects from the land application of biosolids. (Paul Rosile, Franklin County Board of Health)

Response 211:

Ohio EPA currently requires complaint reporting on the annual biosolids report. At this time, Ohio EPA does not feel it is necessary to revise the rules; however, Ohio EPA is committed to working with the local health departments on all complaints.

Comment 212:

3745-40-12(A)(6) - I have just one more comment for consideration that concerns nuisance odor found in rule 3745-40-12. We do not have an odor problem with our biosolids. It could become an issue for any biosolids generator or applicator. The draft proposal does give a definition. But, there is no true reliable test for determining odor in air or biosolids. Standards Methods for the examination of water and wastewater references mainly odor in the form of water. Odor determination is for the most part based on the human nose. One person's concept of a nuisance odor may be acceptable to another. For example, a person living in a city may find a biosolids odor to be offensive whereas a farmer accepts it as a normal smell. Treatment plant personnel over time become "immune" to the every day smells. Personally, I live near a pig farmer. On occasion the odor is so bad we have to close the windows. In my opinion, pig maneuver is the worst farm related odor. Yet, most people accept the fact that the odor will occur from time to time and do not call in a complaint. Could Ohio EPA come up with a better solution? (Stephen Koch, Superintendent, City of Willard WPCP)

Response 212:

Ohio EPA feels that this requirement, as stated, currently provides the Director with flexibility to evaluate such complaints on a case by case basis.

Comment 213:

3745-40-12(A)(6) - The past application process in the City has at times been impeded by political squabbles between the Township and City; and contractor and County Engineer. Since the complaints are made with the OEPA protecting their identify, the issues cannot be properly addressed. (Mark Feldman, Superintendent, City of Marion WWTP)

Response 213:

These issues are relevant to public records laws and should not be addressed in these rules.

Comment 214:

3745-40-12(A)(6) - Please do not allow agricultural farmers to stock pile Nature's Blend for periods of longer than two weeks. From my first-hand experience the Nature's Blend material when stock piled has an offensive pungent human waste odor. This odor occurs whether the material is stock piled during the winter, spring, and/or summer months. (Kathy Zook, citizen)

Response 214:

Restrictions on the field storage of alkaline stabilized biosolids that contain unstabilized solids will be considered for future drafts of the rules.

End of Response to Comments