

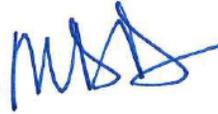
**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL QUALITY**

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**Subject:** Water Guidance Memo No. 10-2004, Revision 2  
Implementation of Extended Setbacks, Coordination of Health Complaints and  
Waiving of Setbacks at Biosolids Land Application Sites

**To:** Regional Directors

**From:** Melanie Davenport, Director, Water Division



**Date:** September 2, 2015

**Copies:** Deputy Regional Directors, Regional Water Permit Managers, Regional Water  
Compliance Managers, James Golden, Neil Zahradka, and Fred Cunningham

**Summary:**

This guidance addresses the implementation of extended setbacks at biosolids land application sites in response to citizen requests, mandatory setbacks from odor sensitive receptors and publicly accessible property lines, and coordination with the Virginia Department of Health (VDH) concerning individual health complaints and setback assessments. Procedures to waive certain setbacks by property owners and residents are also addressed. This guidance (Revision 2) was amended to incorporate regulatory amendments which became effective on September 1, 2013.

**Electronic Copy:**

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET, and for the general public on DEQ's website at:

<http://www.deq.virginia.gov/Programs/Water/Laws,Regulations,Guidance/Guidance/WaterPermitGuidance.aspx>.

**Contact Information:**

Please contact Christina Wood, Office of Land Application Programs at (804) 698-4263 or [christina.wood@deq.virginia.gov](mailto:christina.wood@deq.virginia.gov) with any questions you have regarding the application of this guidance.

**Disclaimer:**

**This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.**

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## I. Authority

DEQ issues permits for the land application of biosolids in accordance with the Virginia Pollution Abatement (VPA) Permit Regulation, 9VAC25-32-303 through 760 and the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation, 9VAC25-31-420 through 720.

By regulation, DEQ may extend various setbacks at any land application site based on site-specific conditions in order to protect the environment or public health.

[9VAC25-32-100](#).E. states:

*Where, because of site-specific conditions, including soil type, identified during the permit application review process, the department determines that special requirements are necessary to protect the environment or the health, safety or welfare of persons residing in the vicinity of a proposed land application site, the department may incorporate in the permit at the time it is issued reasonable special conditions regarding setback distances, transportation routes, slope, material source, methods of handling and application, and time of day restrictions exceeding those required by this regulation.*

[9VAC25-32-315](#).A. states:

*On a case-by-case basis, the board may impose requirements for the use of biosolids or the disposal of sewage sludge in addition to or more stringent than the requirements in this part when necessary to protect human health and the environment from any adverse effect of a pollutant in the biosolids or sewage sludge.*

[9VAC25-32-490](#) states:

*[T]he Board may impose standards and requirements that are more stringent than those contained in this regulation according to the provisions of [9VAC25-32-100.E](#), [9VAC25-32-315](#), and [9VAC25-32-560.B.3](#).*

[9VAC25-32-560.B.3.e.\(1\)](#) footnote 2 provides for extending the setback from occupied dwellings and property lines up to 400' and 200', respectively:

*<sup>2</sup>The department shall grant to any landowner or resident in the vicinity of a biosolids land application site an extended setback of up to 200 feet from their property line and up to 400 feet from their occupied dwelling upon request from their physician based on medical reasons. In order for an extended setback request to be granted, the request must be submitted to the department in writing on a form provided by the department. A request must be received by the department no later than 48 hours before land application commences on the field affected by the extended setback, and communicated to the permittee no later than*

*24 hours before land application commences on the field affected by the extended setback. The department may extend a setback distance within 48 hours of land application if requested by the Virginia Department of Health in connection with the landowner or resident's physician.*

[9VAC25-32-560](#).B.3.e.(1) footnote 3 provides for a mechanism to extend the setback from occupied dwellings and property lines beyond 400' and 200', respectively:

*<sup>3</sup>Setback distances may be extended beyond 400 feet where an evaluation by the Virginia Department of Health determines that a setback in excess of 400 feet is necessary to prevent specific and immediate injury to the health of an individual.*

[9VAC25-32-560](#).B.3.f. addresses voluntary extended setbacks established by the permittee:

*f. Voluntary extensions of setback distances. If a permit holder negotiates a voluntary agreement with a landowner or resident to extend setback distances or add other more restrictive criteria than required by this regulation, the permit holder shall document the agreement in writing and provide the agreement to the department. Voluntary setback increases or other management criteria will not become an enforceable part of the land application permit unless the permit holder modifies the biosolids management plan to include the additional restriction.*

[9VAC25-32-560](#).B.3.e.(1) footnotes 1 and 4 provide for the waiving or reduction of setbacks from private property lines or occupied dwellings:

*<sup>1</sup>The setback distance to occupied dwellings may be reduced or waived upon written consent of the occupant and landowner of the dwelling.*

*<sup>4</sup>The setback distance to property lines may be reduced or waived upon written consent of the landowner.*

## **II. Background**

On January 1, 2008, regulatory oversight for land application of biosolids (treated sewage sludge) was transferred from VDH to DEQ. This transfer occurred at the direction of the 2007 General Assembly, which passed legislation<sup>1</sup> requiring that all land application of biosolids in the Commonwealth of Virginia be permitted under either a VPA permit or VPDES permit.

In the course of administering the biosolids program, DEQ receives complaints and concerns regarding health related issues associated with the spreading of biosolids. As VDH holds primary responsibility for health related issues in the Commonwealth, DEQ requested and received specific recommendations from VDH in 2008 regarding health related investigations

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<sup>1</sup> See Chapter 881 of the 2007 Acts of Assembly, <http://leg1.state.va.us/cgi-bin/legp504.exe?071+ful+CHAP0881..>

and appropriate setback requirements.<sup>2</sup>

In response to DEQ's request, VDH outlined their historical approach and recommended alternatives that might be more effective to implement. When VDH administered the biosolids program, extended setbacks were recommended in cases where vulnerable persons in close proximity to application sites were identified through a medical consultation process. As an alternative, VDH recommended to DEQ that setback distances from residences and publicly accessible property lines be doubled at all sites; this would provide an abundance of caution in response to citizen concerns and make administration of the program more practical.

DEQ drafted guidance to implement the extension of all property line and dwelling setbacks and placed draft guidance on Town Hall for public comment. Based on comment, it was determined that the setback issue should be discussed by the technical advisory committee (TAC) that was formed to provide input on proposed amendments to the VPA and VPDES regulations for biosolids. The TAC, which was composed of scientists, engineers, physicians, attorneys, and other stakeholders, proposed a method of providing extended setbacks that did not require VDH to evaluate each case, but also did not require extended setbacks at every land application site, as suggested in the letter from VDH. The TAC suggested that the default setback should remain at 200 feet for occupied dwellings, but that the setback should be increased to 400 feet in response to a request for an increased setback from the owner or resident of that dwelling.

Therefore, while VDH asserted that the regulatory setbacks of 100 feet from property lines and 200 feet from occupied dwellings provided adequate protection to the majority of the public, DEQ required setbacks of 200 feet from private property lines and 400 feet from occupied dwellings, when requested, to minimize the need for individual consideration of health complaints related to the spreading of biosolids. These extended setbacks were also required at all publicly accessible sites adjacent to biosolids land application sites. VDH also maintained a process by which they handled requests for individual consideration above and beyond these extended setbacks.

The above procedure was developed into guidance and put into practice from January 2010 until September 1, 2013, when the amended regulations took effect. DEQ assigned extended setbacks to the residents of the dwelling, and these setbacks will remain in effect until the residents identified no longer reside at the property.

On September 22, 2011, the State Water Control Board considered the proposed amendments to the VPA and VPDES regulations pertaining to biosolids in a final regulatory action. The final amendments included a Board requested amendment that requires a physician's note when an extended setback from an occupied dwelling or property line is requested. The Board specified that the physician's note shall request an extended setback based on "medical reasons." The amendments also included increased setback distances from all publicly accessible sites and odor sensitive receptors, and retained the VDH process to handle requests for setbacks beyond those applied by DEQ.

The amended regulations also incorporated the use of the term "setback" rather than "buffer" to

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<sup>2</sup> Virginia Department of Health; correspondence from James Burns; May 2, 2008.

indicate the distance between the border of the area where biosolids are applied and a specific feature. The term “buffer” is used as a qualitative description of the area of land created by a setback with certain internal characteristics, such as “vegetative buffer” between land application fields and surface waters. Where appropriate, the term “buffer” has been replaced with “setback” in this guidance.

The final amended regulations completed executive branch review on June 12, 2013 and became effective on September 1, 2013.

### **III. Implementing Extended Setback Requests**

#### **1. Extended Setbacks granted prior to September 1, 2013**

Citizens to whom DEQ granted extended setbacks prior to the effective date of the amended regulations will keep their extended setbacks. The setback extension was granted to the owner(s) or resident(s) of the property, not the property itself. The extended setback remains with the requesting citizen(s). If a citizen with an extended setback moves, the citizen must notify DEQ of the relocation to a new address in order for the extended setback to be implemented at a new location.

#### **2. After September 1, 2013 – where will extended setbacks exist?**

- a. At land application sites, as in 1. above, where a neighboring landowner or resident(s) was granted an extended setback prior to September 1, 2013;
- b. At land application sites where the Regional Office (RO) has received a written request signed by a physician of an owner or resident of a dwelling or property in the vicinity of a biosolids land application site, as in 3. below; and
- c. At land application sites which are adjacent to an occupied dwelling or property that is now occupied or owned by a citizen who had obtained an extended setback at his or her previous residence and provided notice to DEQ of the relocation.

#### **3. Implementing Extended Setbacks from Private Property – Occupied Dwellings and Property Lines:**

- a. Increased setbacks from occupied dwellings and private property lines shall be implemented where the RO has received a written request signed by a physician of the owner or resident of a dwelling or property in the vicinity of a biosolids land application site. The request shall be on the DEQ form **Request for Extended Setback from Biosolids Land Application Field**, provided in Appendix II.

When an extended property line setback for medical reasons is requested for property without a residence, the landowner must make the request. If there are multiple landowners, then only one needs to make the request. This type of setback will not be granted to a lessee unless determined necessary by VDH.

- b. DEQ must take certain steps to make citizens aware of the availability of extended setbacks and the procedure for obtaining them:
  - i. Whenever the department receives an application for a new permit or to

add land to an existing permit that authorizes the land application of biosolids, the RO must notify, or in some cases cause to be notified, persons residing on property that borders the sites that contain the proposed land application fields. The notification will include information notifying the citizen that the setbacks from their residence and property lines may be extended with written request from their physician, along with instructions on how to obtain the form **Request for Extended Setback from Biosolids Land Application Field**. Refer to the VPA Manual Appendix II – 9 Application Receipt Letter to Adjacent Property Residents. If the RO is notifying using postcards, refer to the biosolids VPA webpage at

<http://www.deq.virginia.gov/Programs/Water/LandApplicationBeneficialReuse/PublicNotices.aspx>.

- ii. Whenever an owner or resident of a property or occupied dwelling adjacent or in close proximity to a land application site has questions or concerns regarding the land application of biosolids, DEQ staff shall inform the resident that the setbacks may be extended and explain the procedures for obtaining an extended setback for the dwelling or property line as outlined below in 3.c. – f. DEQ staff will provide the resident with a copy of the form to be signed by their physician. The form may be provided to the citizen as a hard copy in the field, by postal mail, or electronically via email or other file sharing service (e.g. VITAShare), as requested by the resident.
  - iii. RO staff should strongly encourage certified land appliers to keep the forms on hand to provide to nearby residents with complaints or requests for extended setbacks.
- c. When a request signed by a physician is received by the RO, DEQ staff must confirm that the exact location of the residence and/or property line from which a setback will be extended can be determined from the information provided on the request form. If the information provided is not adequate, this determination may involve the exchange of printed maps with the resident that identify the residence and/or property line, discussion with the resident of the affected site as represented in online mapping programs (e.g. Google Maps, county tax maps, etc.), or other means as necessary to confirm the requested setback(s) is applied to the correct location(s).
  - d. The request may be made prior to permit issuance or after permit issuance. While a citizen may submit a request for extended setback at any time, after permit issuance there is the risk that land application will begin prior to the submittal and processing of the request. Often, the posting of the notification signs is the trigger to prompt a neighboring resident to request an extended setback, in which case time restrictions specified in [9VAC25-32-560.B.3.e.\(1\)](#) Footnote 2 will be in effect.
    - i. Citizen requested setback extensions - If the permittee is preparing to land apply (i.e. the land application signs have been posted at the site) and a neighboring property owner or resident desires an extended setback(s), in order to ensure that an extended setback is implemented prior to land

application commencing, the following timeline must be followed:

- (a) The owner's or resident's written request signed by his or her physician must be received by the RO no later than 48 hours prior to land application on the field affected by the extended setback, and
  - (b) RO staff will notify the permittee of the extended setback no later than 24 hours before land application commences on the field affected by the extended setback. For requests received on or near weekends or holidays, the RO should notify the permittee as soon as possible.
- ii. Upon the request of VDH, DEQ will extend a setback from an occupied dwelling or property line at any time up until land application has occurred on the area involved.

If timing is such that biosolids were land applied on the site, within the area of the extended setback, before the extended setback(s) could be implemented, the extended setback is still granted to the citizen and will be implemented with subsequent land application events.

- e. The setback extension is granted to the owner(s) or resident(s) of the property, rather than the property itself and will remain in effect at that location until the requesting citizen(s) no longer occupies or owns the property. The setback extension(s) will move with the citizen. If the individual who was granted the extended setback, as identified in the physician's note or in the GIS database, moves from the property, the setback extension will be terminated at the original location, and take effect at the new residence. Implementation of a relocated extended setback is contingent upon the owner or resident notifying DEQ of the move.
- f. If the citizen or physician is not satisfied with the extended setback implemented by DEQ, that citizen may request an individual assessment from the local Health District Director as described in Section 5 below. In the event that a citizen requests an individual assessment regarding a site with an active permit, the land application of biosolids may continue while the health investigation is conducted, under the following conditions:
  - i. Extended setbacks of 400 ft from a residence and 200 ft from the property line are implemented;
  - ii. DEQ has verified compliance with all regulatory requirements at the site; and
  - iii. The Health Commissioner has not issued an emergency order to cease operation of the biosolids use activity pursuant to [§32.1-13](#) of the Code of Virginia.

#### **4. Documenting a Setback Extension**

- a. DEQ staff will notify the permittee of the extended setback(s) and the permittee shall identify the extended setback(s) on the site map maintained in the site booklet that is used by the land applier. The permittee shall submit the updated site map to the RO to include in the regional copy of the site booklet.
- b. DEQ staff will enter the setback extension(s) into DEQ's Biosolids GIS database

using the instructions in the Task Assistant Manager (TAM) as follows:

Open the TAM and select “Create New Point and/or Related Attributes”;

- i. Check the “Site Address Info” table for an existing record for the extended setback recipient. If no record exists, create a new record. A setback ID number will be automatically generated under “Buffer ID” when the data is entered. Data entry shall include:
  - (1) Name, property address and mailing address, including city, state and zip code, of the resident receiving the increased setback,
  - (2) Starting date of the extended setback(s),
  - (3) Name of the DEQ staff member entering the extension into the database (select from drop down list),
  - (4) DEQ Control ID number of each of the land application fields associated with an extended setback.

For sites/fields that have not been assigned a DEQ Control ID number, enter the permit number(s) and a site identifier, such as the permit holder’s field number(s), into the “Notes” data field.

- ii. Once the attributes have been established, enter the location of the residence or property where the setback is extended into the GIS database by marking a point on the location of the dwelling or property. After the point has been created, enter the following into the “Site Address Attributes” table for the new point:
  - (1) The “Buffer Type”, by selecting the buffer type from the drop down, and
  - (2) The “Buffer ID” for that site, as created in i. above.
- c. As described on the physician’s request form, DEQ staff should instruct adjacent residents not to submit information that contains medical records or other personal medical information. The physician’s request for extended setback form is designed not to contain personal information, and shall be maintained in the permit file. No other identifying health related information concerning any individual receiving a setback shall be collected by DEQ or documented in DEQ files or databases. If DEQ receives any documents with personal medical information, DEQ staff will redact the medical information from the document before entering it into the permit file.
- d. DEQ staff will notify the citizen in writing that the setback(s) has been extended. The notice to the citizen shall include the distance of each extended setback from the occupied dwelling and/or property line and the assigned Buffer ID.

## **5. Individual Health Assessments**

Property owners or residents in the vicinity of land application sites who assert that they need additional protection beyond the increased setbacks specified in Section 3 above must contact the Local Health District Director to request an individual assessment to determine if an additional extended setback is warranted.

- a. RO staff shall provide the property owner or resident with the name and phone

number of the Local Health District Director for their county. Contact information can be found at <http://www.vdh.virginia.gov/lhd/>.

- b. VDH will handle the request according to their internal procedures. The Local Health District Director may request that the VDH - Biosolids Medical Review Committee (BMRC) be convened to make a setback determination. The BMRC is an ad hoc committee composed of VDH staff.
- c. The Local Health District Director will inform DEQ of the outcome of the request and any recommendations they have for further changes to the setback requirements. Correspondence from VDH regarding the outcome of the request should not contain information regarding the specific health conditions of the owner or resident, and this correspondence will be retained in the permit file.
- d. If, during the course of the VDH assessment, DEQ receives any documents with personal medical information DEQ staff will redact the medical information from the document before entering it into the permit file.
- e. RO staff will notify the permittee of the outcome of the request and any additional extended setback(s) and the permittee shall identify the extended setback(s) on the site map maintained in the site booklet that is used by the land applier. The permittee shall submit the updated site map to the RO to include in the regional copy of the site booklet in ECM.

## **6. Removing an extended setback**

As discussed in III.1 and 2, above, the extended setback(s) is granted to an owner or resident of a property or dwelling adjacent to a land application site and the extended setback(s) will remain in place as long as the person who obtained the extended setback owns or resides at the property. However, situations will arise where the extended setback is no longer required or applicable, and DEQ will rescind the extended setbacks, reverting to the regulatory setbacks of 200 feet from an occupied dwelling and 100 feet from a private property line. Examples of such situations are discussed below:

- a. The citizen who obtained an extended setback(s) from his or her property line and/or occupied dwelling sells and/or moves from the property or dwelling:
  - i. The citizen notifies DEQ that they are moving so that the extended setback will move with them to their new location. In this case DEQ will rescind the setback at the original property and implement extended setbacks at the new property.
  - ii. The citizen does not contact DEQ to report the sale or move. In this case the permit holder or the current property owner may request that the extended setback be removed. However, it is the requestor's responsibility to provide reliable evidence to DEQ that the person to whom the extended setback was granted is no longer the owner and/or occupant of the property and the extended setback is no longer applicable. Such evidence may include but is not limited to county records, a statement from the original occupant who was given the extended setback, or a statement from new property owners or residents. DEQ staff may attempt to contact the citizen to verify that he or she no longer owns or resides at the property.

- b. The citizen who obtained an extended setback(s) from his or her property line or occupied dwelling is deceased. The permit holder or the current property owner may request that the extended setback be removed. However, it is the requestor's responsibility to provide evidence to DEQ that the extended setback is no longer applicable. Evidence may include but is not limited to county records or other documentation to verify the extended setback is no longer applicable. DEQ staff will attempt to determine if the citizen's family still owns and/or resides at the property, and make them aware of the removal of the extended setback.
- c. The citizen who obtained an extended setback(s) from his or her property line and/or occupied dwelling decides that the extended setback(s) is no longer needed. In order to remove the extended setback(s), the citizen who was granted the extended setback must submit to DEQ a request in writing. The request must be from the original requestor (prior to 9/1/2013), the citizen named on the physician's note, or his or her legal representative. RO staff will notify the citizen in writing that the setback(s) has been removed.

Anytime an extended setback is removed, RO staff will notify the permittee that the extended setback(s) has been removed and request a copy of the updated site map without the extended setback.

RO staff will also update GIS to delete the point that identifies each extended setback removed and to create new points to identify extended setbacks at a citizen's new property or residence.

#### **IV. Odor Sensitive Receptors and Publicly Accessible Property**

Certain extended setbacks subject to the request procedure detailed above became standard minimum setbacks after September 1, 2013, when the amended regulations took effect. These include setbacks from odor sensitive receptors and property lines of publicly accessible sites.

"Odor sensitive receptor" means, in the context of land application of biosolids, any health care facility, such as hospitals, convalescent homes, etc. or a building or outdoor facility regularly used to host or serve large groups of people such as schools, dormitories, or athletic and other recreational facilities (see [9VAC25-32-10](#)). Setbacks from odor sensitive receptors will be 400 feet if the biosolids are not injected or incorporated the same day. If the facility is not a building, the setback will be measured from the farthest extent of the facility where groups normally congregate. For example, measure the distance from both the stands and field boundary of an athletic field, or for a cemetery, from the area where interments may occur.

Publicly accessible sites are open to the general public and routinely accommodate pedestrians and include, but are not limited to, schools, churches, hospitals, parks, nature trails, businesses open to the public, and sidewalks. Temporary structures, public roads or similar thoroughfares are not considered publicly accessible for the purposes of the setback requirements (see [9VAC25-32-560](#).B.3.e.(1) footnote 5). Setbacks from the property lines of publicly accessible receptor (building or congregation point) that requires a 400 foot setback.

In addition to the facilities named in the definitions, the following table includes examples of some facilities that are subject to mandatory setbacks:

Facility Type	Odor Sensitive Receptor 400' Setback from Facility	Publicly Accessible Property Line 200' Property Line Setback
physician's office	Yes	Yes
athletic fields	Yes	Yes
residential complexes for the elderly, assisted living facilities	Yes	Yes
restaurant/business serving prepared food	Yes	Yes
shopping center/business complex	Yes	Yes
movie theatre	Yes	Yes
church	Yes	Yes
public cemetery*	Yes	Yes
veterinarian's office	No	Yes
single business with no characteristics of odor sensitive receptor	No	Yes

\*Cemeteries with no public access and completely surrounded by property on which a landowner has granted permission to land apply biosolids should not be considered odor sensitive receptors nor publicly accessible. Cemeteries where interments will not likely occur should also not be considered odor sensitive receptors.

If there is disagreement between a business owner and the permit applicant as to whether the business regularly hosts or serves "large groups of people," the setback for an odor sensitive receptor should be required.

Seasonal facilities that harbor the characteristics of either an odor sensitive receptor or publicly accessible property line must be afforded the applicable setbacks during the months in which the activities are expected to occur. The site book must identify the location of the seasonal facility and indicate what months the setbacks are applicable.

## V. Voluntary Setbacks Granted by Permittees

The permittee may negotiate extended setbacks from an occupied dwelling or private property line. The permittee is required to document the extended setback and provide a copy to DEQ, however, this voluntary extension is not automatically an enforceable part of the permit. The extended setback only becomes enforceable if it is written into the permittee's Biosolids Management Plan that is incorporated into the permit, which would include documenting it on the site map in the site books.

## **VI. Waivers – Existing and New**

The setback from occupied dwellings may be reduced or eliminated with written consent from the affected landowner and resident. The setback from a private property line may be waived with written consent from the land owner only. If there is more than one landowner, then all of the owners must provide written consent to the waiver. If more than one setback is involved, the more restrictive setback shall apply. For instance, if the residence and drinking water well, which requires a 100 foot setback, are collocated next to the field to be land applied, and the owner agrees to reduce the dwelling setback to 50 feet, the required 100 foot setback from the well must be maintained.

All other management practices apply to the setback area that has been waived including the presence or scheduled planting of an appropriate crop, and land application rates in accordance with an NMP; e.g., the setback could not be reduced to within 50 feet of a residence if a suitable crop is not grown within the area waived as setback. All access restrictions would also apply to the area receiving biosolids. For example, if the area waived included a small section of pasture used for the family's goats, the goats would not be allowed back in that space for 30 to 60 days, depending on lactation.

## Appendix I. 2008 Recommendation from Virginia Department of Health

	<b>RECEIVED</b> <b>MAY 08 2008</b> <b>DEQ-OD</b>	
<b>COMMONWEALTH of VIRGINIA</b> <i>Department of Health</i> P O BOX 2448 RICHMOND, VA 23218		TTY 7-1-1 OR 1-800-828-1120
May 2, 2008		
<p>James Golden, Deputy Director Virginia Department of Environmental Quality 629 East Main Street P. O. Box 1105 Richmond, Virginia 23218</p>		
<p>Dear Mr. Golden:</p>		
<p>You have asked for our guidance in responding to health concerns from citizens who live near biosolids application sites. The following recommendations are designed to provide an abundance of caution in response to citizen's concerns. There are no data indicating this increased caution is necessary, but we determined that providing these additional measures might make administering the program more practical.</p>		
<p>We recommend that, in addition to the extending the existing buffer of 100 feet to 200 feet between all property lines at which the public may have access and any part of the application site, no application should be permitted within 400 feet of any occupied dwelling.</p>		
<p>The practice of the Department of Health, when the biosolids program was located here, was to extend the buffer to 400 feet in situations where an individual had been identified with medical conditions that <u>could</u> result in increased risk<sup>1</sup>. We found that this policy was difficult to implement, and are therefore recommending that these extended buffers be added in all situations. This should minimize the need for individual considerations.</p>		
<p>If individuals assert that they need additional protection, we recommend that they contact the local District Health Director to request an individual assessment be performed. We would anticipate that there would be very few situations where extended buffers or other controls would be warranted.</p>		
<p><sup>1</sup> Respiratory diseases include Asthma (must require bronchodilator therapy); Chronic obstructive pulmonary disease; Emphysema and Cystic fibrosis. Immunodeficiency and immunosuppression conditions; including Chemotherapy, for two weeks before starting a course of chemotherapy and for one month after completing a course of chemotherapy, or with an absolute neutrophil count less than 1000/mm<sup>3</sup>; Organ transplant recipient, for 4 months after transplantation; HIV infected with CD4 count below 200; Primary immunodeficiency, exclusion will vary depending upon the diagnosis</p>		
 <b>VDH</b> VIRGINIA DEPARTMENT OF HEALTH <i>Protecting You and Your Environment</i> <a href="http://www.vdh.state.va.us">www.vdh.state.va.us</a>		

Mr. James Golden  
May 2, 2008  
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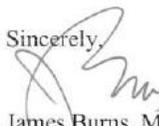
Though biosolids have been applied to land for many years without scientific evidence of harm to humans, it is not possible to make a definitive statement about the safety of biosolids. As the National Research Council's report *Biosolids Applied to Land* concludes: "There is no documented scientific evidence that the Part 503 rule has failed to protect public health. However, additional scientific work is needed to reduce persistent uncertainty about the potential for adverse human health effects from exposure to biosolids."

For many contaminants the level of exposure over time (particularly low-level and chronic exposure to multiple age groups and those with immune vulnerabilities) that can be considered 'safe' or a very low-level risk is not known and is difficult to study. Long term health effects are challenging to study and quantify due to a variety of issues. Further difficulty includes not always having knowledge of the actual contents of the sludge and a complete lack of knowledge regarding health effects for some of the contaminants that may be present and the difficult issue of the toxicology of mixtures of compounds. Class B biosolids may contain a wide variety of contaminants in addition to the 9 regulated contaminants. These include enteric bacteria, viruses, endotoxins, and parasites, organic and inorganic materials. The potential interactions of chemical contaminants with low levels of pathogens in individuals who may have an increased risk of infection due to allergic and irritant reactions that may compromise the normal barriers to infection also need to be considered. However, the physical nature of biosolids and the application process is such that very little of the material leaves the application site.

The best current conclusion is that biosolids applied in compliance with federal and Virginia standards pose very little risk to human health if applied following the applicable laws and regulations. Our recommendation in this letter further decreases that risk.

When requested by your Department, the local District Health Director will attend public meetings to assist in addressing public health concerns. If you have additional questions, please do not hesitate to contact me.

Sincerely,

  
James Burns, M.D., M.B.A.  
Deputy Commissioner

**Appendix II.**

**Department of Environmental Quality  
 Office of Land Application Programs**

**REQUEST FOR EXTENDED SETBACK FROM BIOSOLIDS LAND APPLICATION FIELD**

VPA Permit Regulations 9VAC25-32-560.B.3.d states: <sup>2</sup>*The department (DEQ) shall grant to any landowner or resident in the vicinity of a biosolids land application site an extended setback of up to 200 feet from their property line and up to 400 feet from their occupied dwelling upon request from their physician based on medical reasons. In order for an extended setback request to be granted, the request must be submitted to the department in writing on a form provided by the department...*

<sup>3</sup>*Setback distances may be extended beyond 400 feet where an evaluation by the Virginia Department of Health determines that a setback in excess of 400 feet is necessary to prevent specific and immediate injury to the health of an individual.*

**Patient Information**

Name:	Physical location of property: 911 address and Tax Parcel Number, or other identifier as available:  _____ _____
Mailing Address:	
Telephone:	
Email:	

**Physician's Request**

\_\_\_\_\_ is a patient under my care. I understand that the Department of Environmental Quality (DEQ) regulations regarding the land application of biosolids to agricultural fields requires setbacks of 200 feet from neighboring residences and 100 feet from property lines; within these setback areas biosolids may not be applied. I also understand that DEQ is authorized to extend the setbacks to 400 feet from an occupied dwelling and 200 feet from a property line with the written request from a citizen's physician.

Based on my patient's medical condition, I request that DEQ extend the setbacks from (check all that apply):

my patient's home to a nearby agricultural field that will receive biosolids.

my patient's property line to a nearby agricultural field that will receive biosolids.

\_\_\_\_\_  
 Physician's Name (print)                      Physician's Signature                      Date

Please do not submit any medical records or personal health information with this form. Information submitted to the Department of Environmental Quality is regarded as public information and is subject to release under Freedom Of Information Act requests.

**Note to Physician:** If a larger setback than that described above is sought, please submit this form to DEQ and contact the Virginia Department of Health (VDH) local Health District Director. Obtaining extended setbacks through DEQ with the above written request does not preclude additional consideration by VDH.