

BIOSOLIDS REGULATION

Definition

“Biosolids” means a sewage sludge that has received an established treatment for required pathogen control and is treated or managed to reduce vector attraction to a satisfactory level and contains acceptable levels of pollutants, such that it is acceptable for use for land application, marketing or distribution in accordance with 12 VAC 5-585.

Regulation of Biosolids

Regulated in Virginia by permits since 1979

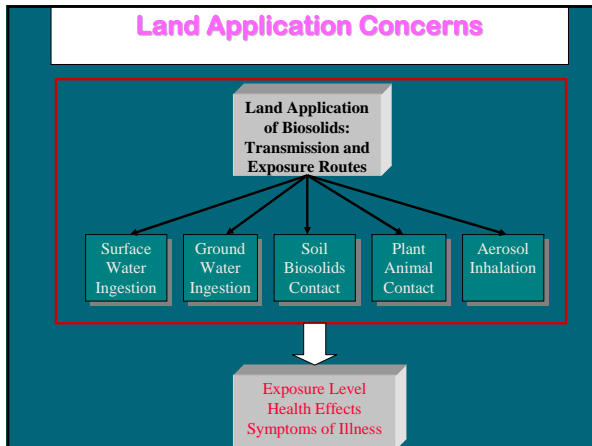
State Agency	Regulated Area
DEQ	System Owners
VDH	Contractors
DCR	Nutrients
VDACS	Crops/Animals

Existing Regulatory Framework
1993 Federal Regulations

40 CFR Part 503 Addresses Sludge Management Use or Disposal:

- Pollutant Limits
- Pathogens
- Vector Attraction
- Site Restrictions





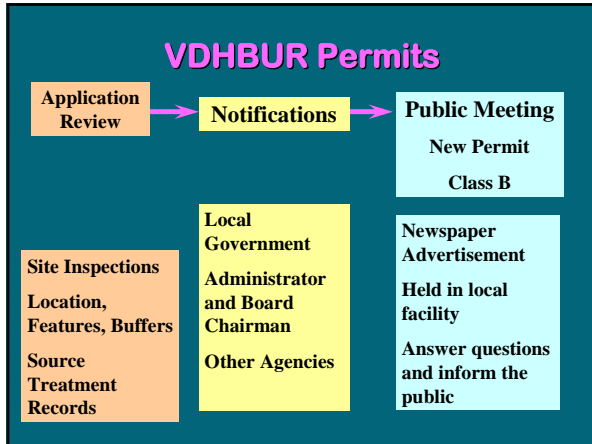
- ### Regulated Elements
- ◆ 1. Treatment provided (i.e., %Organic, pH)
 - ◆ 2. Microorganism Content (Coliform Indicator)
 - ◆ 3. Nutrient Content (Nitrogen Use)
 - ◆ 4. Trace Elements (Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)
 - ◆ 5. Land Application Site Access (Cattle Grazing, Buffers, Public Occupation)
 - ◆ 6. Land Application Site Management Practices (Agronomic Rate of Application, Slope Restrictions, Application Controls, Crop Planting and Harvesting, Soil Depth, pH and Moisture, Setbacks)

- ### Biosolids Use Regulations (12 VAC 5-585)
- ◆ Permits – Land Application Specific Sites - County - Contractor/Land Applier - Land Owner/Farmer Agreement
 - ◆ Site Management Practices
 - ◆ Agronomic Rate - Plant Available Nitrogen
 - ◆ Biosolids Quality based on CFR 40, Part 503 Standards
-
- Information

- ### Land Application Operations
- #### Class B Biosolids
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- ◆ Site specific
 - ◆ Frequent application at agronomic rate
 - ◆ Frequent application below agronomic rates (50%-75%)
 - ◆ Infrequent application(3 years between agronomic rate applications)
- VDHBUR PERMIT

- ### Distribution and Marketing
- #### Class A Biosolids
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- ◆ Exceptional Quality
 - ◆ Suitable for handling
 - ◆ Product description and use instructions provided to end-users
 - ◆ Distribution records kept
 - ◆ Registered with VDACS if sold
 - ◆ Site specific permit waived
- VDH D&M PERMIT

- ### Nutrient Management Plan
- ◆ Plan balances crop nutrient needs with all sources of nutrients: Commercial Fertilizers, Animal Manures and Biosolids
 - ◆ Completed plan will be required for all land application sites
 - ◆ DCR approval of nutrient management plans will be required for either those sites receiving biosolids more frequently than once every three years at greater than 50 % of the agronomic rate established by the Biosolids Use Regulations, or sites owned or operated in conjunction with a confined animal feeding operation
 - ◆ Plan developed by DCR certified planner in accordance with DCR Guidelines for rates and timing
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Current VDH Program

- ◆ Over 140 Permits Issued
- ◆ 50 Counties Contain Permitted Sites
- ◆ Over 400,000 Acres of Permitted Sites
- ◆ Over 50,000 Acres Receive Biosolids Annually

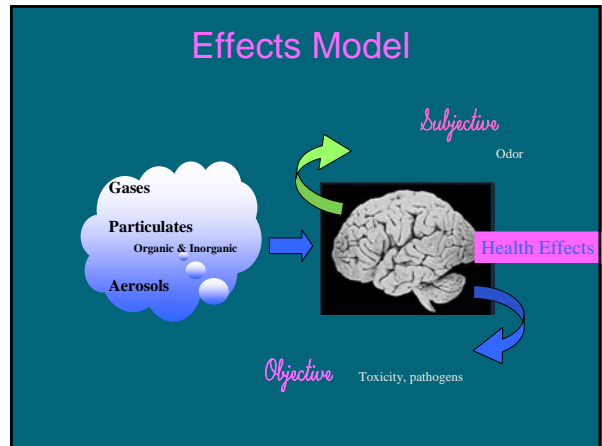
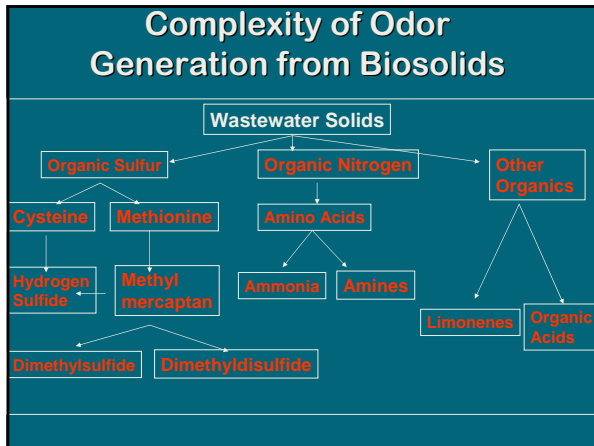
Benefits

Local Government Concerns

- ◆ Odor Complaints
- ◆ State Response to Complaints
- ◆ Advance Notification of Field Operations - Signs at sites
- ◆ Compliance and Enforcement Actions
- ◆ More Restrictive Field Management Practices (buffers, wet soils, cropping)

Credibility





Land Application Fee Program

- ◆ Fees are collected from land appliers, based on amount of biosolids applied and that revenue placed into Fee Fund.
- ◆ Reimbursement made to Counties, of specified local monitoring and testing costs, from the Fee Fund, if County has a proper ordinance.

Verification

DATE THAT LOCAL ORDINANCES APPROVED FOR COLLECTION OF LAND APPLICATION FEES

COUNTIES		COUNTIES	
◆ Amelia	August 2003	◆ Goochland	November 2003
◆ Brunswick	October 2003	◆ Hanover	August 2003
◆ Buckingham	January 2004	◆ King & Queen	August 2003
◆ Charlotte	August 2003	◆ Lunenburg	March 2004
◆ Clarke	August 2003	◆ Nottoway	August 2003
◆ Culpeper	November 2003	◆ Northumberland	June 2004
◆ Cumberland	September 2003	◆ Orange	August 2003
◆ Dinwiddie	December 2003	◆ Prince Edward	August 2003
◆ Frederick	November 2004	◆ Westmoreland	August 2004

LOCAL ORDINANCES RECENTLY APPROVED FOR COLLECTION OF LAND APPLICATION FEES

COUNTIES

◆ Amherst	June 2005
◆ Appomattox	July 2006
◆ Campbell	May 2007
◆ Henry	February 2006
◆ Isle of Wight	November 2005
◆ Lancaster	December 2004
◆ Louisa	March 2007
◆ Surry	May 2006

Advisory Committees

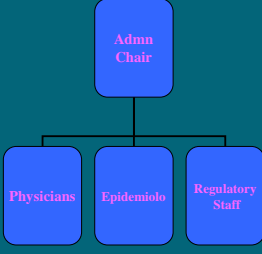
- ◆ Regulations Advisory Committee (BURAC) provide recommendations on implementation of regs
- ◆ Biosolids Information Committee (BUIC) forum for discussion of agronomic issues



DISCUSSIONS

Advisory Committees

- ◆ VDH Biosolids Work Group
 - Established by the State Health Commissioner to provide a forum for discussion of health concerns, complaint response and State and Federal Regulations
 - Consists of physicians, epidemiologists and other VDH Staff



DISCUSSIONS


Biosolids Regulation Study

House Joint Resolution 643 of the 2005 General Assembly called for the Joint Legislative Audit and Review Commission (JLARC) to evaluate the oversight and enforcement of biosolids activity in Virginia. The mandate directed JLARC staff to study VDH's capacity to oversee and enforce the biosolids use regulations, the capacity of local governments to carry out biosolids monitoring and testing as authorized by the General Assembly, and ways to make State and local complaint response and enforcement more consistent and efficient.

- ### JLARC Study
- Joint Legislative Audit and Review Commission (JLARC) Report (House Document No. 89) entitled, "Review of Land Application of Biosolids In Virginia" (<http://jlarc.state.va.us>).
- ◆ Odors and Operational Problems
 - ◆ Health Concerns
 - ◆ Limited State Program Resources
 - ◆ Local Ordinances and Authority
 - ◆ Operation Surveillance
 - ◆ Permit Enforcement and Fee Collection

Regulation Amendments

- ◆ Contractor Petition
- ◆ Certification of Field Supervisors
- ◆ Enforcement/Site Management Practices
- ◆ Field Storage
- ◆ Access Control
- ◆ Permit Fees



Contractor Petition Amendments

These amendments to the Biosolids Use Regulations became final on February 9, 2007 and include the following:

Posting of informational signs at permitted sites prior to and during land application of biosolids. Specifying sign dimensions, informational content and location.

Evidence of financial responsibility (such as liability insurance or other financial resources) in a determined amount, provided by permit applicants and maintained by permitted entities, established for the purpose of compensating third parties for personal injury or property damage, and removing, or remedy of, any established environmental contamination, resulting from the land application of biosolids.

Notification of Local Governments prior to the land application of biosolids at specific sites. The contents and timing of such notices is to be specified.

Development and implementation of spill prevention and response plans by permitted entities. Such plans are to also address the tracking of residues on State Roads by biosolids transport vehicles.

Methods for communicating information on complaints and reported incidents related to or arising from the land application of biosolids.

Contractor Petition Amendment to the Biosolids Use Regulations

- **Section 310: Documentation of Financial Resources and Liability Insurance**
- **Section 460: Notification of Operations Schedule to Local Government and Communication of Complaint Information.**
- **Section 480: Sign Requirements for Operations Notice (information and size)**
- **Section 490: Transport Vehicle Tracking of Roads and Spill Clean Up**

Certification of Field Supervisors

This Final Amendment to the *Regulations* will involve the addition of new sections, 12 VAC (5-585-760 through 830) addressing standards for training, testing and certification of persons land applying Class B biosolids in the Commonwealth, and for revoking, suspending or denying such certification from any person for cause (attached). The land applicator must have a certified individual on site and if the certified land applicator leaves the site they must be available to return to that site within 30 minutes and if not so available, then the land application operation must be shut down at that site.

Enforcement/Site Management Practices

1. § 32.1-164.5 Code of Virginia: requirements for site specific nutrient management plans developed by persons certified in accordance with Department of Conservation and Recreation (DCR) Regulations (§ 10.1-104.2) prior to land application for all sites where sewage sludge is land applied, and requirements for approval of nutrient management plans by DCR prior to permit issuance under specific conditions.
2. § 32.1-164.7 Code of Virginia: provides for local government enforcement of the requirements specified in the Biosolids Use Regulations and the resolution of any disputed local enforcement action by the State Health Commissioner.
3. § 32.1-164.5 Code of Virginia: specify and provide for extended buffers to be employed for application of sewage sludge (i) to hay, pasture, and forestlands; or (ii) to croplands where surface incorporation is not practicable or is incompatible with a soil conservation plan meeting the standards and specifications of the U.S. Department of Agriculture Natural Resources Conservation Service. Such extended buffers may be included by VDH as site specific permit conditions, as an alternative to surface incorporation when necessary to protect odor sensitive receptors, as determined by VDH or the local government .
4. The Final Amendment to the Biosolids Use Regulations will involve amending sections 70, 510, 600, 620 and 630, as well as revisions to Table 12 and removal of Table 14.

Access Control

- ◆ The 2005 JLARC Report recommended that VDH implement additional restrictions on public and animal access to land application sites.
- ◆ This amendment to the Regulations is designed to provide site access control through revisions to clarify the description of high and low potential for public access and revise the requirements contained in the farmer/land owner agreements. Permit applicants provide copies of these agreements to VDH when requesting a permit authorizing land application of biosolids on the sites listed in the signed agreements. The Regulations advisory committee (BURAC) provided recommendations that helped to develop the draft amendment.
- ◆ The proposed amendment to the Regulations will involve the addition of new sections, (12 VAC 5-585- 480, 570 and Table A-1) addressing standards for access control to sites where Class B biosolids are land applied in the Commonwealth.

Field Storage Amendment

The State Board of Health approved a final Field Storage amendment at their April 4, 2005 meeting. During administrative review of the final amendment, a concern was expressed about the wording change establishing a 60 day period for storing uncovered biosolids during the winter to early spring time period. However, objections were also expressed about using a 60 day period for storing uncovered biosolids and certain interests proposed that a cover be provided immediately upon placement of biosolids in storage. Thus, the amendment stage was withdrawn at the request of legislators who anticipated addressing the issue during upcoming General Assembly sessions, in order to establish the authority of local government in the permit process for storage. This issue was the subject of legislation during the 2007 General Assembly session (SB 1300) and a 45 day uncovered period has been proposed as a compromise for storage facilities not regulated by local conditional use permits. Field storage facilities used to store biosolids that will only be used on the farm where the storage is located and the storage of biosolids is for less than 45 days, will not require a conditional use permit from local governments. This amendment will be sent back to Administrative Review as a proposed amendment.

Permit Fees

The proposed amendment will involve revising Section 130 of the *Regulations* to clarify that an operation permit will be issued for the approved specific sites contained within a farm area as identified by the Department. The farm area shall consist of a field with an identified boundary, or multiple fields, whose physical boundaries are not separated by more than 100 feet at the shortest distance between their boundaries. Permit reissuance will include all sites approved for land application under the issued permit. A new Section 135 will be added through this amendment to require that applicants must pay a fee of \$5,000.00 for a new permit that includes up to 2500 acres of specific land application sites and up to \$1,000.00 for subsequent modifications, or reissuance of a permit, for up to 2500 acres. Exemptions to the fee are to be provided for permit modifications initiated by VDH and those modifications involving the addition of only new approved sources of biosolids.

Transfer of Biosolids Permit Program

- ◆ Legislation (HB 2802, Acts of Assembly c. 881, 2007) to amend and reenact § 62.1-44.19:3 of the Code of Virginia, to amend the Code of Virginia by adding in Article 4 of Chapter 3.1 of Title 62.1 sections numbered 62.1-44.19:3.1 through 62.1-44.19:3.4, and to repeal §§ 32.1-164.2 through 32.1-164.7 of the Code of Virginia, relating to regulation and management of the land application of sewage sludge.
- ◆ That the provisions of this act shall become effective on January 1, 2008, and shall not become effective unless adequate funds have been appropriated to administer the program and adequate positions have been authorized by this date.
- ◆ That the State Board of Health's Biosolids Use Regulations (12 VAC 5-585) shall be transferred from the State Board of Health to the State Water Control Board on January 1, 2008, and the State Water Control Board's initial rulemaking to implement this act shall be exempt from Article 2 (§ 2.2-4006 et seq. of the Code of Virginia) of the Administrative Process Act. Such regulations that are in effect shall remain in full force and effect until altered, amended, or rescinded by the State Water Control Board.

Transfer of Biosolids Permit Program

- ◆ When a farm is to be added to an existing permit authorizing land application of sewage sludge, the Department (DEQ) shall notify persons residing on property bordering such farm, and shall receive written comments from those persons for a period not to exceed 30 days. Based upon the written comments, the DEQ shall determine whether additional site-specific requirements should be included in the authorization for land application at the farm.
- ◆ That any permit, certificate, or authorization for the land application, marketing, or distribution of sewage sludge issued prior to January 1, 2008, shall remain in effect for the remainder of the term specified in such permit, certificate, or authorization unless amended or revoked by the Board.
- ◆ That upon the effective date of this act, the fee imposed on each dry ton of sewage sludge that is land applied pursuant to subsection P of § 62.1-44.19:3 shall be \$7.50 until altered, amended or rescinded by the State Water Control Board.

DEQ LAND APPLICATION PROGRAM

- ◆ Details to come later
- ◆ Meanwhile back at the VDH....



SCOTT CAL CHARLIE

The trio dress up all the time for every occasion, with their pet parents, Susan, making their costumes. "They really do love to dress up," says Susan.