

**WEST VIRGINIA**  
**SECRETARY OF STATE**  
KEN HECHLER  
**ADMINISTRATIVE LAW DIVISION**

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1992 JUL -5 AM 3:17

Form #1

**NOTICE OF PUBLIC HEARING ON A PROPOSED RULE**

AGENCY: Agriculture TITLE NUMBER: 61

RULE TYPE: Legislative; CITE AUTHORITY 20-5M-5-C

AMENDMENT TO AN EXISTING RULE: YES \_\_\_ NO X

IF YES, SERIES NUMBER OF RULE BEING AMENDED: \_\_\_\_\_

TITLE OF RULE BEING AMENDED: \_\_\_\_\_

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: 6B

TITLE OF RULE BEING PROPOSED: Primary and Secondary Containment of Fertilizers

DATE OF PUBLIC HEARING: Monday, July 20, 1992 TIME: 11:00 AM

LOCATION OF PUBLIC HEARING: West Virginia Department of Agriculture  
J. T. Johnson Conference Room, Building 2  
Guthrie Agricultural Center  
Charleston, WV 25312

COMMENTS LIMITED TO: ORAL\_\_\_, WRITTEN\_\_\_, BOTH X  
Written comments will be accepted until Thursday, July 30, 1992.

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS:

Barbara Smith  
Director, Compliance Division  
West Virginia Dept. of Agriculture  
1900 Kanawha Blvd., East  
Charleston, WV 25305

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL



4.40

TITLE 61 SERIES 6B

PRIMARY AND SECONDARY CONTAINMENT OF FERTILIZERS

Summary and Description of the rule

This rule substantially follows the Model Rules for Primary and Secondary Containment of Fertilizers adopted by the Association of American Plant Food Control Officials.

This rule requires that facilities storing fertilizers in quantities over 2,500 gallons (fluid) or 12 tons (dry) (if in a non-packaged form) shall have the capability of keeping spills within the containment site. Should a discharge of fertilizers occur from the containment area, the facility is required to have plans to clean up the discharge.

There is a Fertilizer Storage Facility Permit required at an annual fee of \$25.

Circumstances requiring this rule

This rule is required to comply with the mandates of the Groundwater Protection Act which states that each groundwater protection agency shall take action necessary to assure that facilities under their jurisdiction maintain and protect groundwater at existing quality.

The storage of large quantities of fertilizer is a potential source of groundwater contamination, so these facilities are regulated under this rule so as to be operated in a manner protective of groundwater.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

TITLE 61, SERIES 6B

PRIMARY AND SECONDARY CONTAINMENT OF FERTILIZERS

Type of rule: Legislative

Agency: West Virginia Department of Agriculture  
 Compliance Division  
 1900 Kanawha Boulevard, E.  
 Charleston, West Virginia 25305

<u>Effect of Proposed Rule</u> <u>Estimated Total Cost</u>	<u>ANNUAL</u>		<u>FISCAL YEAR</u>		
	<u>Increase</u>	<u>Decrease</u>	<u>Current</u>	<u>Next</u>	<u>Thereafter</u>
	\$	\$	\$	\$	\$
Personal Services	0	0	0	0	0
Current Expense	1,000	500	0	1,000	1,000
Repairs and Alterations	0	0	0	0	0
Equipment	0	0	0	0	0
Other	0	0	0	5,000	1,000

2. Explanation of above estimates:

The estimates are based on the assumption that an annual inspection will be performed on an estimated 20 firms, for an increase in current expense of \$1,000. The \$500 decrease in cost is due to the collection of the fees for the facility permits. The estimate for "other" assumes that the Department will need to hire an outside consultant for training and may need to hold seminars with the operators of the firms during the initial years of this program.

3. Objectives of these rules:

The objective of this rule is to mandate storage conditions for fertilizer stored in large quantities in bulk so as to protect the groundwater resources of this state. The Groundwater Protection Act designated the Department of Agriculture as the regulatory agency for the application and use of fertilizers and required the agency to develop practices to prevent groundwater contamination in this area.

4. Explanation of Overall Economic Impact of Proposed Rule:

A. Economic Impact on State Government.

This rule increases the responsibility of the Department of Agriculture. The impact on state government will be that another program will be added to a staff that is already working at capacity. (However, the additional work is not expected to be enough to justify another position.) There will be increased current expense and a reduction of the amount of time spent on other mandated programs. Due to the completely new nature of this program, the estimates of cost can be expected to be inaccurate.

B. Economic Impact on Political Subdivisions, Specific Industries, Specific groups of citizens.

approximately \$2,000,000

The economic impact on the agricultural industry and those served by it will be very high. It is estimated that the capitol cost to each firm installing primary and secondary containment for fertilizers is between \$50,000 and \$150,000. There are 17 retail firms that will need to install containment and an unknown number of farmers and other firms that will also need to construct these areas.

Procedures will need to be developed to identify these (currently unknown) farmers and firms that will result in the "long arm of the law" further invading the public and private lives of citizens.

C. Economic Impact on Citizens/Public at Large.

The economic impact on citizens and the public at large will be that costs of fertilizer will increase by \$10-20 per ton.

As there is no evidence that fertilizers are a major, or minor, pollutant of groundwater there can be no calculation of the benefits to the present and future users of groundwater due to the impact of these rules.

Date: June 5, 1992



Signature of Agency Head or Authorized Representative

TITLE 61

WEST VIRGINIA DEPARTMENT OF AGRICULTURE

SERIES 6B

PRIMARY AND SECONDARY CONTAINMENT OF FERTILIZERS

§61-6B-1. General

1.1 Scope. - These rules establish primary and secondary containment standards for fertilizers for the purpose of protecting the groundwater resources of the state of West Virginia.

1.2 Authority - WV Code 20-5M-5-c

1.3 Filing Date. - -

1.4 Effective Date. -

1.5 This is a new legislative rule.

§61-6B-2. Definitions

2.1. "Abandoned container" means a storage container or other container used at a storage facility to hold fluid bulk fertilizer or fertilizer rinsate that has been out of service for more than 6 months because of a weakness or leak, or has been out of service for any reason for more than 2 years and no integrity test has been performed.

2.2. "Approved" means approval by the commissioner except where otherwise stated.

2.3. "Aqua ammonia" means an aqueous solution of anhydrous ammonia generally containing from 18 to 30 percent of ammonia (NH<sub>3</sub>) by weight and having a vapor pressure usually varying from 0 to 10 psig at 104 degrees F.

2.4. "Commissioner" means the Commissioner of the West Virginia Department of Agriculture or his appointed agent.

2.5. "Discharge" means a release outside the secondary containment area of fluid fertilizer in a quantity exceeding fifty-five (55) U.S. gallons and/or of dry bulk fertilizer in a quantity exceeding two hundred (200) pounds, unless otherwise specified in The Superfund Amendments and Reauthorization Act (SARA), 42 U.S.C. 9601, Title III Emergency Planning and Community Right-to-Know

provisions. The term discharge does not include the normal loading and transportation of fertilizers from the facility or the lawful distribution use, disposal or application of fertilizers.

2.6. "Dry bulk fertilizer" means nonfluid fertilizer in nonpackaged form.

2.7. "Elephant ring" means a storage container with open top serving as a secondary containment vessel into which a smaller primary storage container(s) is placed.

2.8. "Fertilizer" means any substance containing one or more recognized plant nutrients which is used for its plant nutrient content and which is designed for use or claimed to have value in promoting plant growth. The term fertilizer will not include agricultural liming materials, manure, wood ashes, gypsum or industrial/municipal byproducts.

2.9. "Field operations" means the application of fertilizer to soil or plants in the course of normal agricultural or horticultural practice.

2.10. "Fluid bulk fertilizer" means fluid fertilizer in an undivided quantity exceeding 55 gallons.

2.11. "Fluid fertilizer" means fertilizer in fluid form, and includes solutions, emulsions, suspensions and slurries. "Fluid fertilizer" does not include anhydrous ammonia.

2.12. "Load or loading" means the transfer of bulk fertilizer from the storage facility to transport vehicles, application equipment, or mobile containers, unless the use of the word in the context means otherwise.

2.13. "Low pressure nitrogen solutions" means an aqueous solution of ammonium nitrate and/or urea and/or other nitrogen carriers, containing various quantities of free ammonia exceeding two percent (2%) by weight. Aqua ammonia and non-pressure nitrogen solutions commonly referred to as 28%, 30%, or 32% nitrogen solutions are excluded from this definition.

2.14. "Operational area" means an area or areas at a fertilizer storage facility where fertilizers are transferred, loaded, unloaded, mixed, or where fertilizers are cleaned or washed from application equipment, storage containers, or transportation equipment.

2.15. "Operational area containment" means any structure or system designed and constructed to effectively intercept and contain operational spills, including container or equipment wash water and rainwater, and to prevent runoff or leaching from a storage facility.

2.16. "Operator" means any person who is responsible for the transferring, loading, unloading, mixing and/or storing of fertilizers and may include an owner, operator or manager.

2.17. "Person" means an individual, partnership, association, fiduciary, firm, company, corporation or any organized group of persons whether incorporated or not.

2.18. "Primary containment" means the storage of fluid or dry bulk fertilizer in storage containers at a storage facility.

2.19. "Roofed" means protected from precipitation and any subsequent drainage.

2.20. "Secondary containment" means any structure used to contain product spills from primary storage containers and prevent runoff or leaching.

2.21. "Storage container" means:

2.21.a. a container used for the storage of fluid or dry bulk fertilizer; or

2.21.b. a rail car, nurse tank, or other mobile container used for the storage of fluid bulk or dry fertilizer; but does not include

2.21.b.A. a mobile container storing fluid bulk or dry fertilizer at a storage facility for less than 15 days, if this storage is incidental to the loading or unloading of a storage container at the storage facility,

2.21.b.B. a mobile container located on property not owned, operated or controlled by an operator of a storage facility, nor

2.21.b.C. a container used solely for short-term emergency storage of leaking fertilizer containers.

2.22. "Storage facility" means a location at which fluid bulk fertilizer in undivided quantities in excess of two thousand five hundred (2,500) U.S. gallons or dry bulk fertilizer in undivided quantities exceeding 12 tons is held in storage where the total quantity of the product at the firm may be divided into more than one storage container and still be considered "undivided"; and where that storage occurs for more than a total of 30 days during a 12 month period.

2.23. "Unload or unloading" means the transfer of bulk fertilizer in an unaltered state from the transport vehicle to the storage facility.

**§61-6B-3. General program and policy.**

3.1. The commissioner recommends that every operator of a storage facility utilize the services of a competent engineer for planning any construction or alterations to their operational area and that the Environmental Handbook for Fertilizer and Agrichemical Dealers published by the Tennessee Valley Authority, TVA Technical Library, P.O.Box 1010, Muscle Shoals, AL 35660-1010 be used to assist in the development of the planning and construction of operational areas.

3.2. The commissioner strongly recommends that every operator of a storage facility take action to remove or mitigate existing contamination under the site of the proposed operational area that has the potential to contaminate groundwater prior to any construction or alteration to the operational area.

3.3. The operator will be responsible for maintenance of the operational area to comply with these rules and in a manner adequate to minimize the risk of a discharge.

**§61-6B-4. Powers and duties of the commissioner.**

4.1. The commissioner has the power and authority to:

4.1.a. enter and inspect, during reasonable hours, any location where fertilizers are, or may be, stored in such quantities so as to come under these rules;

4.1.b. take samples and review design plans where appropriate to determine compliance with these rules;

4.1.c. audit records of shipments of fertilizers, inspections, and maintenance;

4.1.d. promote the protection of groundwater through educational programs for operators;

4.1.e. collect and expend monies under the terms of this rule;

4.1.f. conduct hearings as provided by this rule;

4.1.g. assess civil penalties, negotiate agreements and refer violations to a court of competent jurisdiction;

4.1.h. obtain court orders directing any person refusing to submit to inspection, sampling or auditing to submit;

4.1.i. issue, suspend or revoke permits or deny a permit application;

4.1.j. issue orders requiring compliance with these rules; and

4.1.k. promulgate additional regulations as necessary to protect groundwater within the statutory mandates that may include but not limited to licensing and certification, operational management, closure, remediation and monitoring for water quality.

#### **§61-6B-5. Permits and Design Plans.**

5.1. No person may operate a storage facility, except as provided by these rules, without a valid Fertilizer Storage Facility Permit posted prominently at the local office of the storage facility. One permit may apply to a storage facility that stores both dry bulk and fluid fertilizer.

5.2. Any person intending to construct and operate a storage facility must obtain a Fertilizer Storage Facility Permit from the commissioner prior to the construction of primary or secondary storage. The application must be made at least 30 days prior to the beginning of construction of the facility for firms that are not in operation on the effective date of this rule. Any person operating a storage facility on the effective date of this rule must, within 6 months of the effective date of this rule, make application for a Fertilizer Storage Facility Permit.

5.3. Any person seeking to renew the Fertilizer Storage Facility Permit must make application within 15 days of the expiration date of the permit.

5.4. Application forms shall be furnished by the commissioner and shall contain the following information: the corporate or company name; the location; the mailing address; the phone number; the operator's name; the owner's name; and any other information relevant to the containment of bulk fertilizers.

5.5. Each application must be signed and dated by the operator or his or her authorized representative under sworn statement. The application must be accompanied by a permit fee of \$25.00. An additional \$10 penalty fee shall be assessed if the application is not made within the time periods outlined in this section of the rule.

5.6. The commissioner shall issue a non-transferable Fertilizer Storage Facility Permit to each person meeting the requirements of this section. Each permit shall expire on June 30 following the date of issue.

5.7. The commissioner may deny any application for a Fertilizer Storage Facility Permit whenever the permit has been applied for fraudulently, the applicant has grossly interfered with

the duties of the commissioner or the applicant is determined to be not in compliance with, or not able to comply with these rules.

5.8. The commissioner may suspend or revoke a Fertilizer Storage Facility Permit whenever a hazard to the environment exists or is believed to exist, said permit has been obtained fraudulently, the holder has grossly interfered with the duties of the commissioner or it is determined that the permit holder is dishonest, deceitful, incompetent or not in compliance with or is unable to comply with the provisions of this rule. Any person whose Fertilizer Storage Facility Permit has been suspended or revoked shall immediately discontinue all operations covered under the permit.

5.8.a. Prior to the suspension or revocation order, the commissioner will give written notice to the permit holder, stating that the suspension or revocation of the permit is being contemplated and giving the reasons therefore. The notice shall appoint a time and place for a hearing to be held in this matter. The notice shall be mailed by certified mail to the business address of the permit holder at least 10 days prior to the date set for the hearing. The commissioner shall review the evidence presented at the hearing prior to his decision in the matter of suspension or revocation of the permit.

5.8.b. At the end of the period of suspension, the permit holder may resume operations covered by the Fertilizer Storage Facility Permit without reapplication for a permit.

5.8.c. At the end of the period of revocation, the permit holder must reapply for a permit.

5.9. Each person with a Fertilizer Storage Facility Permit shall submit design plans and specifications for construction to the commissioner prior to the start of construction, or for a storage facility that is operating on the effective date of this rule, a description of the current facility and plans to bring the facility into compliance shall be submitted within 12 months of the effective date of this rule. The commissioner will review the design plans and specifications with the provisions of this rule and notify the person promptly if any significant deviation is found. The commissioner will allow significant deviations from this rule if they are clearly indicated on the design plans and specifications along with a certification from a registered engineer that these deviations will not reduce the effectiveness of the facility to protect groundwater. The review of these plans by the commissioner does not eliminate the responsibility of the operator for constructing and maintaining a facility that will protect the groundwaters of this state.

5.10. Each person submitting design plans and specifications will notify the commissioner promptly of any significant change to

the design plans and specifications prior to proceeding with construction.

#### **§61-6B-6. Inspection, Maintenance and Record Keeping Requirements**

6.1. Every storage facility shall be inspected by the operator of the storage facility at intervals of not greater than seven days during operational periods and thirty days during non-operational periods. The inspection frequency shall be adequate to minimize the risk of a discharge. The operator will make a written record of the inspection made on the day of that inspection. In addition to the routine inspection report made on the day of the inspection, written records shall be maintained as follows, where applicable:

6.1.a. a weekly record of the condition of valves for storage containers for fluid fertilizers whenever the containers are being used for storage;

6.1.b. a weekly record of the condition of loading and unloading pads and catch basins during operational periods, or at least monthly during periods of non-use;

6.1.c. a monthly record of the fluid fertilizer levels in each storage container when in use and a comparison of the measured level versus the calculated level based on shipments in and out of the container;

6.1.d. a monthly record of the condition of primary containers and elephant rings;

6.1.e. a semi-annual inventory reconciliation, showing the amount of fluid bulk fertilizer and dry bulk fertilizer from each storage container which is lost or unaccounted for at the end of each semi-annual period; and

6.1.f. other inspection records pertaining to the condition of storage containers, appurtenances, operational area containment, and secondary containment facilities.

6.2. The operator will take immediate effective action when inspections determine non-compliance with these rules, or that a greater than minimal risk of a discharge exists. The operator will maintain a written record of the actions taken on the day of the maintenance.

6.3. The operator of a storage facility shall maintain the records required by this rule for a minimum of 5 years at each storage facility or at the nearest local office from which the storage facility is administered and shall make all records required by this rule available to the commissioner upon request.

#### **§61-6B-7. Discharge Response Plan**

7.1. The operator of a storage facility shall prepare a written Discharge Response Plan for the storage facility. The plan shall include:

7.1.a. the identity and telephone number of the persons or agencies who are to be contacted in the event of a discharge, including persons responsible for the stored fertilizer;

7.1.b. for each bulk fertilizer stored at the facility, a complete copy of the labeling required by WV Code §19-15-1 et seq. (except for the net weight);

7.1.c. an identification, by location, of every storage container located at the storage facility, and the type of fertilizer stored in each storage container;

7.1.d. for each type of bulk fertilizer stored at the facility, the procedures to be used in controlling and recovering, or otherwise responding to a discharge; and

7.1.e. procedures to be followed in using or disposing of a recovered discharge.

7.2. The operator shall keep the Discharge Response Plan current at all times.

7.3. The operator shall keep a copy of the Discharge Response Plan readily available at the storage facility or at the nearest local office from which the storage facility is administered, and shall make the plan available for inspection and copying by the commissioner.

7.4. The commissioner will require the operator of each facility existing on the effective date of this rule complete a Discharge Response Plan within 2 years of the effective date of this rule.

#### **§61-6B-8. Storage and Handling of Dry Bulk Fertilizer**

8.1. No person will store dry bulk fertilizer in undivided quantities exceeding 12 tons unless the storage is inside an operational area containment structure consisting of a sound structure or device having a cover or roof top, sidewalls, and a base sufficient to prevent contact with precipitation and surface waters.

8.2. No person will load, unload, mix or handle dry bulk

fertilizer, except for those procedures performed in the field of application, without using a containment method, device, or structure suitable to prevent or minimize groundwater contamination. The containment method, device, or structure shall be of a size and design that will contain the fertilizer and operated to minimize emission of dust and/or vapors beyond the facility boundaries. Any collected material shall be applied at agronomic fertilizer rates or otherwise recycled.

8.3. The operator will promptly recover, so as to prevent possible seepage or run-off to the groundwaters of this state any dry bulk fertilizer which is spilled while being loaded to or from storage when the spillage would exceed a quantity greater than 200 lbs.

8.4. The commissioner will consider approval of containment devices, structures, or methods which include, but are not limited to:

8.4.a. paving and curbing of outdoor handling areas with materials which allow for collection and recycling of the spilled products;

8.4.b. enclosing conveyors and equipping conveyors with dust control boots. Manually extendible boots may be adaptable to upright and auger type conveyors;

8.4.c. collection and recycling of product dust from rooftops of roof-filled storage structures; or

8.4.d. daily cleanup of the non-roofed areas each day when in use.

8.5. No person will store dry bulk fertilizer without a complete label as required by WV Code §19-15-1 et seq. (except for the net weight) posted on the storage container or on a placard erected on the product.

8.6. No person may construct an operational area for dry bulk fertilizer storage in undivided quantities exceeding 12 tons closer than 100 feet from a wellhead, unless that operation is in use on the effective date of this rule.

8.7. No person may store dry bulk fertilizer on land with a reasonable expectation of having a flood event from a 25 year - 24 hour frequency storm during the storage period unless the storage area is adequately protected from inundation by flooding.

8.8. The commissioner will allow firms that operate a storage facility for dry bulk fertilizer on the effective date of this rule 5 years to fully comply with this rule as long as the operator submits a plan for full compliance with this rule within 2 years of

the effective date of this rule and the operator takes immediate action to prevent groundwater pollution within the capability of the current facility.

**§61-6B-9. Primary Containment: Storage Containers and Appurtenances for Fluid Fertilizer**

9.1. No person may store fluid fertilizer in storage containers and appurtenances unless the containers and appurtenances are

9.1.a. constructed, installed and maintained so as to prevent the discharge of fluid fertilizer;

9.1.b. constructed of materials which are resistant to corrosion, puncture or cracking;

9.1.c. made or repaired with materials that are not of a type which react chemically or electrolytically with stored fluid fertilizer in a way which may weaken the storage container or appurtenances, or create a risk of discharge;

9.1.d. made with metals used for valves, fittings and repairs on metal containers that are compatible with the metals used in the construction of the storage container, so that the combination of metals does not cause or increase corrosion which may weaken the storage container or its appurtenances, or create a risk of discharge;

9.1.e. equipped with supports for pipes and fittings that are adequate to prevent sagging and possible breakage because of gravity and other forces which may be encountered in the ordinary course of operations;

9.1.f. are protected against reasonably foreseeable risks of damage by trucks and other moving vehicles engaged in the loading or unloading of fluid bulk fertilizer;

9.1.g. designed to handle all operating stresses, taking into account static head, pressure buildup from pumps and compressors, and any other mechanical stresses to which the storage containers and appurtenances may be subject in the foreseeable course of operations;

9.1.h. anchored, as necessary, to prevent flotation or instability which might occur as a result of liquid accumulations within a secondary containment facility; and

9.1.i. equipped with a liquid level gauging device secured in a safe manner to protect against breakage or vandalism on each storage container whereby the level of fluid in the storage

container can be readily and safely determined, unless

9.1.i.A. the level of fluid in a storage container can be readily and reliably measured by other means, provided that external sight gauges may not be used unless they are securely attached against the container wall and provided with a manually operated shut off valve which is locked in the shut off position at all times the level of fluid is not being determined.

9.2. The commissioner recommends that the storage containers and appurtenances be vented to manufacturer's specifications for the product being stored in the container.

9.3. No person may store fluid fertilizer in an underground or lined pit storage container, except for:

9.3.a. a watertight catch basin used for the temporary collection of runoff or rinsate from transfer, loading and unloading areas, and expeditiously emptied following use;

9.3.b. a 316 or 317 stainless steel storage container;  
or

9.3.c. in another approved container, if the storage container is enclosed within an approved liner and an approved program of groundwater monitoring to detect leakage is established.

9.4. The commissioner prohibits the use of storage containers and appurtenances

9.4.a. that are constructed of copper, brass, zinc, or copper base alloys;

9.4.b. used for the storage of fluid fertilizers containing phosphates (>0.1%) or chlorides that are constructed of aluminum or aluminum alloys;

9.4.c. used for the storage of low pH (<5) fluid fertilizers that are constructed of ferrous materials other than stainless steel unless the materials are coated or treated with protective substances which are adequate to inhibit corrosion;

9.4.d. used for the storage of low pressure nitrogen solutions that are constructed of mild steel, fiberglass, polyolefins or plastic;

9.4.e. used for the storage of phosphoric acid that are constructed of ferrous materials other than 316 or 317 (or superior) stainless steel unless the container is lined with a suitable substance to prevent corrosion; or

9.4.f. used for the storage of fluid fertilizers

containing potassium chloride (muriate of potash) that are constructed of ferrous materials other than stainless steel, unless:

9.4.f.A. the containers and appurtenances are coated or treated with protective substances which are adequate to inhibit corrosion; or

9.4.f.B. the container or appurtenance is used for storage periods of not more than 6 months, and is completely emptied between storage periods, and, the empty containers and appurtenances are cleaned and inspected for leaks prior to being refilled for any subsequent period.

9.5. No person may store fluid fertilizer unless the

9.5.a. storage containers and appurtenances are fenced or otherwise secured by an approved means to provide reasonable protection from wildlife, vandalism and unauthorized access which may result in a discharge;

9.5.b. valves on storage containers containing fluid fertilizers are locked or otherwise secured except when persons responsible for facility security are present at the facility; and

9.5.c. valves on rail cars, nurse tanks, and other mobile fertilizer containers containing fluid fertilizer parked overnight at a storage facility are locked or secured except when persons responsible for facility security are present at the facility.

9.6. No person may fill storage containers beyond the capacity for which they are designed, taking into account the density of the fluid being stored and thermal expansion during storage.

9.7. No person may store fluid fertilizer in a storage container without a clear and prominent label identifying the contents of the storage container with the requirements of WV Code §19-15-1 et seq. (except for the net weight).

9.8. No person may store fluid fertilizers on land that has a reasonable expectation of having a flood event resulting from a 25 year - 24 hour frequency storm during the storage period unless the storage area is adequately protected from inundation by flooding.

9.9. No person may construct an operational area for fluid fertilizers closer than 100 feet from a wellhead, unless that operation is in use on the effective date of this rule.

9.10. Any person owning an abandoned underground container,

or abandoned underground catch basin shall thoroughly clean and remove it from the ground or thoroughly clean and fill it with an inert solid and shall maintain a permanent record of any abandoned container or catch basin (that remains underground) size, location, and method of closing at the storage facility or at the nearest office from which the storage facility is administered.

9.11. Any person owning an abandoned container or abandoned catch basin, whether underground or not, shall disconnect and seal all connections and vents and secure all hatches and sever and/or seal all valves and connections.

9.12. The commissioner will not consider a secondary containment facility to be abandoned merely because there have been no operational spills into the secondary containment facility.

9.13. The commissioner will allow facilities that are in operation on the effective date of this rule 3 years to fully comply with this section of the rule as long as the operator submits a plan for full compliance with this section of the rule within 2 years of the effective date of this rule and the operator takes immediate action to prevent groundwater pollution within the capability of the current facility.

**§61-6B-10. Secondary Containment - Operational Area Containment for Fluid Fertilizer**

10.1. No person may store fluid fertilizer unless the area used for the loading of fluid bulk fertilizer into storage containers, or for unloading fluid bulk fertilizer from storage containers into mobile containers is curbed and paved with asphalt, concrete or other material approved by the commissioner. Such curbed and paved area must provide an impervious surface where the curbed and paved area is

10.1.a. of sufficient size to enable the loading and unloading areas to be located within the operational area that allows at least 300 square feet of containment area surrounding the loading and unloading area;

10.1.b. designed, constructed and maintained to handle all loading conditions to which it is exposed; and

10.1.c. maintained by keeping all cracks and seams sealed and be impervious to leakage from any spillage.

10.2. The requirements of this section do not apply to mobile containers used to nurse field operations when at a field unloading site.

10.3. No person may store fluid fertilizers unless the

operational area containment has a curbed and paved surface that drains into a liquid-tight catch basin

10.3.a. that is of adequate design and size to contain a minimum of one thousand five hundred (1,500) gallons of an operational spill when at least one person is available during the entire loading and unloading process that is capable of stopping the loading or unloading process in the case of an operational spill; if no person is available to monitor the loading and unloading process then the design and size shall be adequate to contain a total of 110% of the volume of the largest vehicle to be loaded or unloaded; and

10.3.b. which may include a sump and an above-ground container, provided that a pump is installed for transfers of the contents into the above-ground container.

10.4. All operators are responsible for promptly recovering any operational spill from the operational area containment so that the capacity required in this section is available at all times.

10.5. All operators will be responsible for maintaining all secondary containment free of debris and foreign matter.

10.6. The commissioner will allow adjoining secondary containment areas to share common walls.

10.7. The commissioner will allow facilities that are in operation on the effective date of this rule 3 years to fully comply with this section of the rule as long as the operator submits a plan for full compliance with this section of the rule within 2 years of the effective date of this rule and the operator takes immediate action to prevent groundwater pollution within the capability of the current facility.

**§61-6B-11. Secondary Containment of Fluid Bulk Fertilizer - Dikes and Elephant Rings.**

11.1. No person may store fluid bulk fertilizer unless the primary storage area is located within a diked area that is constructed with a base, perimeter wall and sloped floor drain or is located within an elephant ring as provided by this section.

11.2. No person may use the diked area for storage of other products other than fluid bulk fertilizers and equipment used in the operational area. All operators must maintain the minimum capacity requirement at all times. The minimum capacity requirement for the diked area for containment shall contain, below the height of the dike, 125% of the volume of the largest storage container within the diked area plus the submerged portions of all other storage containers, fixtures, and materials in the area,

except that if the diked area is covered to prevent the accumulation of rainfall, a capacity equal to 100% of the volume of the largest container is the minimum capacity required.

11.3. No person may operate a operational area containment facility with drainage tile within or underlying the area unless the drainage tile is used as a method of monitoring the integrity of the primary and secondary containment structures.

11.4. The commissioner requires that dikes meet the following requirements:

11.4.a. the walls of a secondary containment facility shall be constructed of earth, steel, concrete or solid masonry, or other material specifically approved by the commissioner, and be designed to withstand a full hydrostatic head of any discharged fluid and weight load of material used in construction;

11.4.b. cracks and seams shall be sealed to prevent leakage;

11.4.c. walls constructed of earth or other permeable materials shall be lined as provided in this section;

11.4.d. earthen walls shall have a horizontal-to-vertical slope of at least 3 to 1, unless a steeper slope is consistent with good engineering practice, and shall be packed and protected from erosion;

11.4.e. the top of earthen walls shall be no less than 2.5 feet wide;

11.4.f. walls may not exceed 6 feet in height above interior grade unless provisions are made for normal access and necessary emergency access to tanks, valves and other equipment, and for safe exit from the secondary containment facility;

11.4.g. walls constructed of concrete or solid masonry shall rest upon a floating base of concrete prepared as in this section or upon suitable concrete footings which extend below the average frost depth to provide structural integrity;

11.4.h. the base of a secondary containment facility, and any earthen walls of the facility shall be lined with asphalt, concrete, an approved synthetic liner, or a clay soil liner designed to limit permeability of the base and walls. Liners shall meet the following requirements.

11.4.h.A. Asphalt or concrete liners shall be designed according to good engineering practices to withstand any foreseeable loading conditions, including a full hydrostatic head of discharged fluid and static loads of storage containers,

including appurtenances, equipment, and contents. Cracks and seams shall be sealed to prevent leakage.

11.4.h.B. Synthetic liners and installation plans shall be approved by the commissioner. A synthetic liner may not be approved by the commissioner until the manufacturer of the liner provides the commissioner with a written confirmation of suitability including compatibility with the stored materials, and a written estimate of the life of the liner. Synthetic liners shall have a minimum thickness of 30 mils (0.8 millimeters); and shall be installed under the supervision of a qualified representative of the manufacturer or a professional engineer. All field constructed seams shall be tested, and repaired if necessary, in accordance with the manufacturer's recommendations.

11.4.h.C. Soil liners shall be constructed by sealing the surface of the soil, including the berm of an earthen dike with a sealing agent such as sodium bentonite, attapulgite or a similar clay material. The soil liner shall be constructed in accordance with reliable civil engineering practices, to achieve a coefficient of permeability not to exceed  $1.0 \times 10^{-6}$  cm/sec, with a thickness of not less than 6 inches. The floor of the containment area within the soil liner shall be protected with a layer of gravel or crushed stone at least 6 inches thick placed on top of the clay liner.

11.5. The commissioner will not require that a liner be installed directly under a storage container having a capacity of one hundred thousand (100,000) U.S. gallons or more which has been constructed on site and put into use prior to the effective date of this rule provided that one (1) of the following alternative procedures is complied with, certified in writing by an official of the company which owns the storage container, and the certificate is filed with the commissioner.

11.5.a. Alternative 1: The original bottom of the storage container shall be tested for leaks before the sand layer and second bottom are installed. A record of the test shall be kept on file at the storage facility. A second bottom made of steel shall be constructed for the storage container. The second bottom shall be placed over the original bottom and a layer of smooth, fine gravel or coarse sand having a minimum thickness of three (3) inches. The newly constructed bottom shall be tested for leaks before any fluid fertilizer is stored on the newly constructed bottom. A record of the test shall be kept on file at the storage facility, or at the nearest local office from which the storage facility is administered.

11.5.b. Alternative 2: The container shall be emptied, cleaned, and tested for leaks. The walls and floor of the container shall be tested to assure that welds and thickness of steel plates are sound and adequate to contain the fertilizers. A

record of the inspection, test results, and of any repairs made shall be submitted to the control official and maintained by the operator. The interior floor and wall areas of the container shall be coated with an approved liner to inhibit corrosion. A record of this procedure shall be submitted to the commissioner and maintained by the operator. A test for leaks and liner deterioration approved by the commissioner shall be conducted every five (5) years thereafter. A record of the test findings and of indicated repairs and maintenance shall be maintained by the operator.

11.5.c. Alternative 3: Monitoring devices shall be installed in angled borings under each tank. These monitoring devices shall constitute a leak detection system for each tank in advance of the point at which any leak would reach groundwater. The number, length, and depth of each boring shall be determined on the basis of site characteristics. The array of monitoring devices under each tank shall constitute the best practical early warning detection system for tank leakage. Each monitoring plan under this alternative shall be implemented only upon review and approval of the commissioner.

11.6. The commissioner will not require a secondary containment structure to be used for rail cars that are periodically moved into and out of the storage facility.

11.7. The commissioner will allow individual storage containers not exceeding three thousand (3,000) gallons to be contained within an "elephant ring" in lieu of a diked secondary containment area. The commissioner requires that secondary containment areas using elephant rings meet the following requirements:

11.7.a. both the primary storage container and the elephant ring shall be fabricated of material compatible with each other and with the fertilizer being stored;

11.7.b. if dissimilar metals between the primary storage container and the elephant ring are used that may contribute to electrolytic corrosion provisions must be made to prevent such corrosion;

11.7.c. the height of the elephant ring wall shall not exceed 4 feet unless provisions are made for escape should flooding occur;

11.7.d. the volume contained within the secondary storage walls of the elephant ring up to the working height of the elephant ring shall be sufficient to contain a volume 15% greater than the volume contained in the primary storage container plus the volume displaced by the footings of any equipment (i.e. pumps, meters, etc.) placed within the secondary containment vessel;

11.7.e. the elephant ring shall be maintained free of leaks and structural defects at all times;

11.7.f. the base shall be protected from corrosion, both from inside and outside the ring, and shall be underlain by a concrete pad or with eight inches of compacted gravel beneath four inches of compacted sand, or clay, or as recommended by the manufacturer of the elephant ring and approved by the commissioner;

11.7.g. all piping connections to the primary storage container shall be made over the wall of the elephant ring and shall be adequately supported and braced;

11.7.h. have a sump pump within the elephant ring or an exterior portable pump available for removing operational discharges; and

11.7.i. pumps and other fixtures, if located within the elephant ring containment structure, shall be placed on an elevated platform above the top of the elephant ring or otherwise protected from flooding.

11.8. The commissioner will allow facilities that are in operation on the effective date of this rule 3 years to fully comply with this section of the rule as long as the operator submits a plan for full compliance with this section of the rule within 2 years of the effective date of this rule and the operator takes immediate action to prevent groundwater pollution within the capability of the current facility.

#### **§61-6B-12. Drainage from Secondary Containment Areas.**

12.1. No person may operate a diked secondary containment area with a relief outlet and valve.

12.2. The commissioner will require that a diked earthen or prefabricated secondary containment area shall have a base that slopes to a collecting spot where storm water can be discharged by a manually-operated pump over the berm for use in the blending process or for proper disposal in accordance with local requirements for disposal of storm water.

12.3. The commissioner will require that an asphalt or concrete lined secondary containment area shall have

12.3.a. a recessed catch drain running through the center of the base; or

12.3.b. a sump located within the containment area, that shall have no valve plumbed into the sump unless that sump is a part of a permanent recessed catch drain as specified in this

section.

12.4. The commissioner will allow storm water or other drainage to be removed from the secondary containment area if used for makeup water in fertilizer mixes or disposed of in accordance with local requirements if it is known or believed to be free of chemical residues that could contaminate groundwater.

12.5. No operator may use a collection tank as a storage area.

12.6. All operators are responsible for removing operational spills from the secondary containment area promptly in order to maintain the capacity for future operational spills.

#### §61-6B-13. Hearings.

13.1. The commissioner will offer a person an opportunity for an informal hearing prior to issuing an order in all cases except where the protection of the public health requires immediate action to protect groundwaters in this state.

#### §61-6B-14. Civil and criminal penalties.

14.1. When determining the assessment of civil or criminal penalties the commissioner shall consider the following factors in determining the unreasonableness of any harm referred to in this rule which shall include, but need not be limited

14.1.a. to the extent of harm to public health, environment, beneficial use of the groundwater;

14.1.b. to the burden and fairness of requiring a person to bear the loss;

14.1.c. to the causing of harm in the conduct of reasonable activities utilizing practices conducted in conformity with federal and state laws and regulations;

14.1.d. to the person's history of compliance that indicates continued noncompliance or disregard for compliance;

14.1.e. to the person's knowledge of the rules and regulations that were violated; and

14.1.f. - to activities that were conducted in a negligent, reckless or intentional manner, where negligence means a failure to exercise reasonable care.

**§61-6B-15. Special revenue account and Groundwater remediation fund.**

15.1. The commissioner will deposit all fees, penalties or other monies collected under the provisions of this rule into a special revenue account and expended upon the order of the commissioner for the purpose of the enforcement and administration of this rule; except for the net proceeds of civil penalties collected pursuant to W.Va. Code §20-5M-10-a or any civil administrative penalties collected pursuant to W. Va. Code §20-5M-10-c that will be deposited in the groundwater remediation fund established in W. Va. Code §20-5M-1 et seq.



STATE OF WEST VIRGINIA  
DEPARTMENT OF AGRICULTURE

State Capitol  
Charleston, WV 25305

Cleve Benedict  
Commissioner

June 15, 1992

Received  
June 15 1992  
Division of Compliance

The Honorable Ken Hechler  
Secretary of State  
Ground Floor, W-157, State Capitol  
Charleston, West Virginia 25305

Dear Mr. Hechler:

The Commissioner of Agriculture announces that he has scheduled public hearings for the proposed rules affecting groundwater in addition to the hearings listed on the "Notice of Public Hearing on a Proposed Rule" filed with you on June 5, 1992.

The additional hearings will all be held in Room 315/316 Percival Hall, Forestry Building, Evansdale Campus, West Virginia University, Morgantown, WV according to the following schedule:

- Non-Bulk Pesticide Rules for Permanent Operational Areas (61-12I)  
Thursday July 23 3 PM
- General Groundwater Protection Rules for Fertilizer and Manures (61-6A)  
Thursday July 23 5PM
- Primary and Secondary Containment of Fertilizers (61-6B)  
Thursday July 23 7PM
- General Groundwater Protection Rules for Pesticides (61-12G)  
Friday July 24 8AM
- Bulk Pesticide Operational Rules (61-12H)  
Friday July 24 10AM
- Generic State Management Plan for Pesticides and Fertilizer in Groundwater(61-22)  
Friday July 24 1PM
- Best Management Practices for Temporary Operational Areas of Non- Bulk Pesticides (61-22A) Friday July 24 2:30PM

Please publish this notice in the State Register.

Sincerely,

Barbara J. Smith  
Director, Compliance Division  
(304)-558-2226 FAX: - 3594

BJS:pfhear.hec