WEST VIRGINIA

SECRETARY OF STATE

KEN HECHLER

ADMINISTRATIVE LAW DIVISION

Form #5

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SECRETARY OF STATE

NOTICE OF AGENCY ADOPTION OF A PROCEDURAL OR INTERPRETIVE RULE OR A LEGISLATIVE RULE EXEMPT FROM LEGISLATIVE REVIEW

AGENCY: Agriculture TITLE NUMBER: 61

CITE AUTHORITY: 19-16A-4 ; 20-5M-5

RULE TYPE: PROCEDURAL X INTERPRETIVE _____

EXEMPT LEGISLATIVE RULE _____
CITE STATUTE(s) GRANTING EXEMPTION FROM LEGISLATIVE REVIEW

_____

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 ADOPTED: 22

TITLE OF RULE BEING ADOPTED: Generic State Management Plan for Pesticides and Fertilizer in Groundwater

THE ABOVE RULE IS HEREBY ADOPTED AND FILED WITH THE SECRETARY OF STATE. THE EFFECTIVE DATE OF THIS RULE IS November 1, 1992

TITLE 61, SERIES 22

GENERIC STATE MANAGEMENT PLAN OF PESTICIDES AND FERTILIZERS IN GROUNDWATER

Summary and Description of the rule

This rule establishes the overall program of the W.Va. Department of Agriculture for protection of groundwater. This rule gives guidance for the development of procedures, practices and rules for the program.

Circumstances requiring this rule

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

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Generic State Management Plan for Pesticides and Fertilizer in Groundwater.

Type of Rule: ____ Legislative ____ Interpretive X Procedural

Agency Department of Agriculture Address Pesticide Division
1900 Kanawha Blvd. E., Charleston, WV 25305-0190

1. Effect of Proposed Rule	ANNUAL Increase	ANNUAL Decrease	FISCAL YEAR Current	FISCAL YEAR Next	FISCAL YEAR Thereafter
Estimated Total Cost	$ 75,000	$	$ 75,000	$ 75,000	$ 75,000
Personal Services	70,000		70,000	70,000	70,000
Current Expense	5,000		5,000	5,000	5,000
Repairs and Alterations					
Equipment					
Other					

2. Explanation of above estimates:

The estimates are based on the assumption of an increased inspection staff to monitor and educate the regulated community on groundwater protection activities. The personal services estimate is for 2 additional field inspectors and 1 additional clerical person. Current expense estimates are for travel expenses.

3. Objectives of these rules:

The objective of this rule is to provide a framework for the protection of groundwater. The plan provides for interagency cooperation in monitoring, education, and mitigation of groundwater issues. The rules provide recognized procedures or measures to address groundwater issues surrounding pesticides and/or fertilizers.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

This rule will increase the responsibility of the Department of Agriculture and other agencies named in the rule. The increased responsibility and activity to educate the public, prevent contamination and mitigate instances of contamination. To be effective the costs to state goverment will be significant. As this is a new area of regulatio no accurate estimate can be given.

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

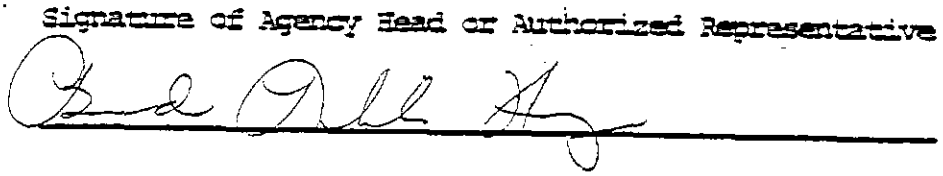
The economic impact to the agricultural pest control and golf course industries will be high. The price of many goods and services will increase. These groups, along with various state agencies and political subdivisions storing large quantities of pesticides and fertilizers will face increased fiscal costs. As this is a new rule no accurate estimate can begiven.

C. Economic Impact on Citizens/Public at Large.

The economic impact on the citizens and public will be that the cost of goods and services will increase.

Date: June 5, 1992

Signature of Agency Head or Authorized Representative



AMENDMENTS TO TITLE 61, SERIES 22
MADE TO THE RULE AS A RESULT OF COMMENTS RECEIVED

Amendments were made to the following paragraphs as a result of written and oral comments received: Paragraph 4.6, 6.2, 6.3, 12.1, 12.3 and 12.4.d.

The changes made and the reasons for the changes are explained in the "Summary of Comments".

Title 61
West Virginia Procedural Rule
State Department of Agriculture

Series 22

Title: GENERIC STATE MANAGEMENT PLAN FOR PESTICIDES AND FERTILIZERS IN GROUNDWATER

61-22-1 General

1.1 Scope - This rule establishes the guidance for the development of procedures, practices and regulations to protect groundwater.

1.2 Authority - West Virginia Code 19-16A-4, 20-5M-5

1.3 Filing date -

1.4 Effective date -

61-22-2 Definitions

2.1 The definitions used in West Virginia Code 19-15-1 et seq., 19-16A-1 et seq. and Title 61 code of state regulations adopted thereunder shall apply to these regulations unless otherwise defined in this regulation.

61-22-3 GOALS AND GENERAL PROGRAM POLICIES

3.1 The goal of the State Management Plan for Pesticides and Fertilizers in Groundwater is to prevent, minimize, or mitigate the movement of pesticides and fertilizer to groundwaters of the state. This goal does not mean zero-contaminant discharge, but that discharges of pesticides and fertilizers be conducted in a manner that will maintain or improve present groundwater quality and not impair potential use of groundwater or pose a public health hazard. Remediation of groundwater where contaminated with pesticides and fertilizers should utilize all existing relevant technologies to revert water to its previous condition. The term pesticides and fertilizers shall mean the same as their definition in West Virginia code 19-16A-1 et seq. and 19-15-1 et seq. respectively.

3.2 Groundwater classification can allow ground waters of the state to be identified and protected according to their water quality and present or potential use. The highest and best use of groundwater is for drinking purposes. Groundwater in some aquifers

may not be suitable for drinking due to natural conditions such as salinity.

3.3 Pesticides and fertilizers are beneficial and important to the economy of the state. Scientific procedures exist that permit the mathematical prediction of the potential of probability of their subsequent entry into groundwater. However, predictive modeling must be verified by actual monitoring. Procedures also exist to identify areas of the state more vulnerable to groundwater contamination due to soils, geology, hydrology and pesticide and fertilizer use patterns. Identification of sensitive areas for this program serves to focus the utilization of limited resources.

3.4 By identifying chemicals of concern and sensitive areas of the state and applying appropriate Best Management Practices on a voluntary basis, or on a mandatory basis if the voluntary efforts fail, useful chemical production tools can be maintained while protecting the state's groundwater resource. This approach recognizes that the elimination of useful pesticides and fertilizers may cause economic hardships and that replacement products or techniques may also cause environmental or health risks.

3.5 Valid scientific monitoring, prediction and other methodologies will be used in a scientific approach to determining the quality of groundwater resources. Modern analytical techniques can identify minute concentrations of chemicals, far below levels of health concern. As improvements are made in these techniques, lower and lower concentrations will be detected, which makes zero discharges theoretically an impossibility. For these reasons, the use of numerical health-based standards to trigger management changes is a sound ground-water resource management approach. As activities carried out near wellheads often affects well water quality, this groundwater protection plan includes a wellhead protection strategy.

3.6 Existing state and federal resources, funding programs, fee controls, grants and cooperative agreements will be used to the maximum extent possible. Where necessary, appropriate new legislation will be sought.

61-22-4 STATE AGENCIES AND RESPONSIBILITIES

4.1 General. Whenever possible, existing authorities will be utilized and enhanced where necessary to provide for the establishment of water quality standards, monitoring protocols and procedures including quality assessment and development of management plans.

4.1.a West Virginia code 20-5M-1 et seq. designates the Division of Natural Resources as the state lead department for groundwater. The Department of Agriculture is specifically

authorized to be the groundwater regulatory department for the use or application of pesticides and fertilizers. Other agencies specifically designated to regulate groundwater are the division of energy and the division of health. If the authority to regulate facilities or activities which may adversely impact groundwater is not otherwise assigned, the division of natural resources is authorized as the regulatory department for unassigned facilities or activities. As appropriate, the Division of Natural Resources shall cooperate with the Department of Agriculture, Division of Energy, and Division of Health.

4.2 Water Quality and Health-based Standards

4.2.a The Water Resources Board shall set numerical health-based standards for pesticides and fertilizers in ground water, based on the best available scientific data. Federal Maximum Contaminant Levels (MCL) as promulgated under the Safe Drinking Water Act, or a National Primary Drinking Water Regulation will be used when possible.

4.2.b In the absence of a regulatory standard promulgated by the Water Resources Board, the Commissioner will utilize established EPA Health Advisory Levels or other non-promulgated federal numerical values based on health evaluations. The use of these non-regulatory health based standards will be used for guidance in determining program direction.

4.3 Monitoring Studies

4.3.a The Department of Agriculture in cooperation with the Division of Natural Resources, Water Resources Section will be responsible for designing and carrying out groundwater monitoring studies with respect to pesticides and fertilizers. The department will also determine sensitive areas in cooperation from the State Geological Survey, the U. S. Geological Survey and the Soil Conservation Service.

4.3.b The State Health Department is responsible for implementing pesticide monitoring under the National Primary Drinking Water Regulations.

4.4 Regulation of Pesticides and Fertilizers

4.4.a The Department of Agriculture registers all pesticides distributed in the state and may restrict the use of a pesticide if restrictions are required to prevent unreasonable risk to health or the environment. The department is responsible for regulating the use, distribution, transportation, storage, and disposal of pesticides to ensure compliance with statute and regulations and for documenting use violations under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The department

is also responsible for licensing pesticide dealers and for certifying commercial and private pesticide applicators who use restricted use pesticides. The department investigates complaints of suspected pesticide misuse and conducts routine inspections of pesticides used in the state.

4.4.b The department will compile a list of chemicals of concern, based on monitoring data and/or scientific evaluation of up-to-date computer modeling techniques. When monitoring data or proven models indicate that health-based standards are exceeded or may be exceeded in the future, based on a trend approach, the department will develop a chemical-specific management plan utilizing preventative Best Management Practices in areas of the state deemed sensitive to contamination by the chemical.

4.4.c The current fertilizer law specifies that all fertilizers (not including unmanipulated manures) be registered, labeled and a tonnage fee paid. The enforcement program revolves around sampling the product and comparing the results with the guarantee on the label. There are no provisions for use, application rates, or groundwater protection.

4.4.d The Groundwater Protection Act gives the West Virginia Department of Agriculture the authority to regulate the application and use of pesticides and fertilizers. In addition the Department has the authority to:

4.4.d.A engage the voluntary cooperation of all persons in the maintenance and protection of groundwater;

4.4.d.B advise, consult and cooperate with all persons, all agencies of this state, universities and colleges, the federal government and other states in the furtherance of protecting groundwater;

4.4.d.C receive and spend funds to further this end;

4.4.d.D encourage the formation and execution of plans to maintain and protect groundwater by cooperative groups or associations who are impacting on the maintenance and protection of groundwater;

4.4.d.E encourage, participate in or conduct or cause to be conducted studies of groundwater quality and the impact of fertilizers and pesticides;

4.4.d.F make reports and recommendations;

4.4.d.G conduct sampling, data collection, analyses and evaluation with sufficient frequency so as to ascertain the characteristics and quality of groundwater, and the

sufficiency of the groundwater protection programs established; and

4.4.d.H develop public education and promotion of groundwater protection programs.

4.5 The State Agricultural Experiment Station will to the extent feasible, conduct studies to determine the fate and transport of pesticides and fertilizers through soils to groundwater under varying conditions across the state. Best Management Practices specific to chemicals and sensitive areas will be developed to reduce groundwater contamination risk. State scientists will cooperate with scientists in other agencies when appropriate. The Experiment Station will also investigate ground water remediation techniques to address previously contaminated water.

4.6 The State Agricultural Extension Service will carry out educational activities to improve the efficiency of pesticide and fertilizer use and promote the adoption of Best Management Practices to reduce the potential for groundwater contamination. Information generated by research at the State Agricultural Experiment Station and elsewhere will be extended to agriculturalists and the general public. Staff will provide training in these areas and address inquiries. Cooperative educational programs will be carried out with other appropriate state and federal agencies including the State Agricultural Experiment Station, State Department of Natural Resources, U. S. Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS), U. S. Environmental Protection Agency (EPA) and the U.S. Geological Survey (USGS).

61-22-5 LEGAL AUTHORITY

5.1 State Statutes

5.1.a Existing state statutes are believed to provide adequate authority for the protection of the state's groundwater resources. The state Groundwater Protection Act of 1991 identifies the roles and responsibilities of the various State Agencies. Where authority is lacking under specific statutes, the Groundwater Protection Act of 1991 provides the authority for adopting groundwater protection practices or regulations.

5.1.b The specific existing statutes relevant to groundwater protection from pesticides and fertilizers are:

5.1.b.A Groundwater Protection Act of 1991 (WV code 20-5M-1 et seq.)

5.1.b.B Pesticide Control Act of 1990 (WV code 19-16A-1 et seq.)

5.1.b.C Wellhead Protection Act (WV code 16-1-1 et seq.)

5.1.b.D Solid Waste Act (WV code 20-5F-1 et seq.)

5.2 Federal statutes administered in some degree by designated state agencies include:

5.2.a Resource Conservation and Recovery Act (RCRA). U.S. EPA authorizes state agencies to administer its hazardous waste program. The RCRA program regulates the generation, transportation, treatment, storage and disposal of hazardous waste. Facilities regulated under the RCRA program must obtain a permit for pesticide storage, processing or disposal which requires compliance with specific performance standards relating to protection of groundwater.

5.2.b Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). U. S. EPA cooperates with designated state agencies to initiate an appropriate response to releases or threatened releases of hazardous substances. The program partially finances cleanup of sites on the National Priorities List, holds polluters liable for the costs of cleanups and establishes a federal notification requirement for hazardous substances release and assists states in monitoring hazardous sites.

5.2.c Clean Water Act (CWA). Section 106 of the CWA provides funds to states to develop statewide groundwater protection strategies and management programs. Funds provided under Sections 205 (j) (5) and 319 of the CWA allow development and implementation of programs related to prevention and remediation of nonpoint sources of pollution of surface and groundwater, including pollution from pesticides and fertilizers.

5.2.d Safe Drinking Water Act (SDWA). U. S. EPA may designate sole or principal source aquifers, which have been determined to be sensitive to contamination and if contaminated, would pose a public health risk. No federal funds may be committed to a project if EPA determines that the project may contaminate the designated aquifer. Amendments in 1986 to the SDWA provide a mechanism to fund sole source aquifer demonstration projects for state and local governments for groundwater protection programs, which could include pesticide and fertilizer use related projects.

61-22-6 ENFORCEMENT MECHANISMS

6.1 The prevention of exceedance of health-based water quality standards will be accomplished through use of a two tiered management system (voluntary, followed by mandatory management practices and safeguards) which seeks to identify, prevent and reverse trends toward increasing concentrations of pesticides and

fertilizers in groundwater.

6.2 When valid monitoring data or generally accepted computer modeling techniques predict contamination by specific chemicals in specific areas or when monitoring shows an increasing trend, voluntary best management practices will be initiated accompanied by an educational effort. Monitoring of the groundwater in the area will increase.

6.3 If despite voluntary measures, monitoring indicates that chemical concentrations continue to increase or contamination exceeding health based standards is documented, mandatory management practices, chemical management plans and other regulatory restrictions will be enacted. These practices would then be included as pesticide and fertilizer regulations in the state and would be enforceable under FIFRA and/or state laws. Penalties for violation of pesticide label requirements or state restrictions include revocation of pesticide dealer licenses or pesticide applicator certification and civil penalties or criminal penalties, depending on the severity of the violation. (If the state statutes do not provide for adequate civil or criminal penalties, violations can be referred to the U.S. EPA for prosecution under FIFRA where applicable).

6.4 If, after evaluation of it's effectiveness, the two tiered management system is unsuccessful in preventing standard-exceeding concentrations of pesticides and fertilizers, product registration may be suspended, canceled or restrictions imposed by areas of concern.

6.5 Other regulations which protect groundwater from pesticides and fertilizers will include secondary containment regulations for pesticide and fertilizer storage and mixing, pesticide and container disposal regulations and wellhead protection programs.

6.6 When water quality and health-based standards for pesticides and fertilizers are found to be exceeded by any agency, this information will be forwarded to the Department of Agriculture for a site investigation to determine if a product use pattern or best management practice is ineffective or if a misuse has occurred which may be subject to penalty. This information shall also be shared with other appropriate agencies for their evaluation or to see if other statutes may have been violated.

61-22-7 RESOURCE/TECHNICAL EXPERTISE

7.1 All existing technical expertise and other resources available in the state will be inventoried and roles and responsibilities of each resource specified.

7.2 Existing and potential funding sources will be

identified.

7.3 Where technical expertise or resources or authority are inadequate to meet the objectives of the management plan, these deficiencies will be identified and addressed.

7.4 Technical expertise needed to carry out the management plan include: groundwater vulnerability studies based on soil type and hydrogeologic factors; present cropping and pesticide and fertilizer use patterns in the state; present aquifer use and projected future use; predictive modelling of pesticide and fertilizer groundwater contamination potential; chemical analysis; groundwater monitoring; engineering of structures related to groundwater protection such as secondary containment; training and certification of applicators; pesticide and fertilizer use investigations; development of specific best management practices based on research; and education of pesticide and fertilizer users.

7.5 State agencies which may have needed expertise and resources include the Department of Agriculture, Department of Natural Resources, Department of Public Health, Geological Survey, Agricultural Experiment station and Extension Service. Federal agencies include U.S. EPA (including Office of Pesticides and Toxic Substances, Office of Drinking Water, Office of Groundwater Protection, Office of Water Regulations and Standards,Office of Solid Wastes, Office of Emergency and Remedial Response), Soil Conservation Service, Agricultural Stabilization and Conservation Service, Animal and Plant Health Inspection Service, USDA Agricultural Research Service, U. S. Army Corps of Engineers, U.S. Forest Service, U. S. Bureau of Land Management and U. S. Geological Survey.

61-22-8 BASIS FOR ASSESSMENT AND PLANNING

8.1 Vulnerability Assessment

8.1.a The assessment of the vulnerability of groundwaters to agricultural and non-agricultural point and nonpoint source contamination will require the cooperation of state agencies. Information concerning soil properties, hydrogeology, aquifer properties, usage of pesticides and fertilizers and known contamination will be used to identify areas sensitive to point and nonpoint source pollution. These areas will be targeted for closer examination by the Department of Agriculture or other appropriate agencies.

8.1.b Data required include: Soil properties: physical, chemical and/or biological properties; unsaturated zone organic carbon and clay content; and rates of water travel through the unsaturated zone. Aquifer properties: depth to groundwater; recharge areas; discharge areas; rates of travel in the saturated zone; and wellhead protection areas. Irrigation and rainfall data.

Pesticide and fertilizer usage and leaching data.

8.1.c Evaluation of the relationships between the above factors will be conducted by all participating agencies using general integrative techniques such as modeling, DRASTIC, and GIS systems to identify areas in the state that appear or are most likely to be vulnerable to contamination. However, more weight will be given to actual data than predictions due to modeling, as modeling is not a definitive predictor of water movement, but the technique is valuable as a reference point.

8.2 Pesticide and Fertilizer Assessment

8.2.a State management plans will be developed for specific pesticides and fertilizers when either predictive models which indicate likelihood of leaching in vulnerable areas or monitoring data demonstrates an existing or potential problem.

8.2.b Chemicals of concern will be identified by considering physicochemical properties including: water solubility, soil adsorption, soil degradation, hydrolysis and rate, timing or method or application. Predictive models such as GLEAMS, CREAMS, PRZM and the SCS pesticide-soil matrix will be utilized. Predicted ground-water concentrations will be compared to health-based water standards to determine chemicals which are predicted to exceed standards under certain conditions or are shown to be increasing in groundwater.

8.2.c Use patterns of identified chemicals of concern will be examined along with existing monitoring data. If the chemical has been used extensively in vulnerable areas and monitoring data fails to demonstrate detections exceeding standards or trends which threaten to exceed standards in the future, a management plan is not required. However, if sufficient monitoring data is unavailable or if the chemical in question does not have a history of use in the area and could be used in the future, a management plan could be initiated.

61-22-9 GROUNDWATER CONTAMINATION PREVENTION MEASURES

9.1 General. Contaminated groundwater can be very expensive and sometimes impossible to totally remediate. When contamination occurs from point sources, the origin of the pollutant can be identified and corrective action taken to prevent further contamination. When contamination comes from a nonpoint source, remediation may be more expensive than from point source contamination and may not be technologically or economically feasible. Prevention of unacceptable contamination from pesticides and fertilizers, rather than depending on remediation is the primary goal of this plan.

9.2 Point Source Management. Any pesticide and fertilizer

can contaminate wells or groundwater from point sources and all areas of the state can be vulnerable, although areas determined to be more vulnerable to contamination from nonpoint sources will also be more vulnerable to point source contamination. Because of the ubiquitous nature of the point source threat to groundwater, prevention measures will apply to all pesticides and fertilizers. Some measures may be voluntary while other measures are mandatory and described by statue.

9.2.a Regulations will be adopted to provide for secondary containment at pesticide and fertilizer storage and mixing sites. Likewise, regulations will be adopted to provide for mixing/loading pad requirements, containment at bulk pesticide and fertilizer storage sites and rainwater and surface discharge management at pesticide and fertilizer storage and mixing sites.

9.2.b Animal waste storage and management, best management practices and/or regulations will be promulgated.

9.3 Wellhead Protection. Activities which may threaten wells will be cataloged, regulated and monitored in wellhead protection zones and may be already covered by statute. State well codes will be assessed to determine if they provide adequate protection. Programs to assist well owners in evaluating construction and maintenance deficiencies and in reconditioning substandard wells will be initiated. Additional wellhead protection practices include:

9.3.a education on proper well construction and maintenance practices;

9.3.b conducting pesticide and fertilizer mixing activities a safe distance (100 feet or more) from wells or confining mixing activities to watertight loading pads;

9.3.c storing pesticides and fertilizer away from wells;

9.3.d use of anti-backsiphon devices or allowing an air space between the filling hose and liquid in the tank when sprayers are filled at the well or water distribution system and when practicing chemigation;

9.3.e reduction in sprayer rinsate through use of injection sprayers or on-board sprayer rinsers;

9.3.f recycling of sprayer rinsate through use as sprayer make-up water; or

9.3.g avoiding pesticide and fertilizer application within 50 feet of wellheads.

9.4 Other programs will be developed to include:

9.4.a programs on ground and surface water protection for urban and home use audiences;

9.4.b programs to collect excess and unusable pesticides for proper disposal;

9.4.c educational programs to encourage proper triple rinsing or pressure rinsing of pesticide containers;

9.4.d pesticide container recycling programs; and

9.4.e public education in schools, civic clubs and other organizations on water resource protection.

9.5 Nonpoint Management Plans

9.5.a General. Chemical specific management plans addressing nonpoint contamination will be two-tiered, relying on voluntary measures first, with mandatory measures enacted if voluntary measures fail to alleviate contamination.

9.5.b First Tier Voluntary Management

9.5.b.A Vulnerability Assessments. Agencies including Cooperative Extension and SCS will assist landowners and managers with assessments which will determine specific areas vulnerable to groundwater contamination due to conditions such as highly permeable soils, shallow ground water, geological features such as sinkholes, presence of drainage wells and presence of major groundwater recharge areas. Based on conditions found, voluntary management plans will be developed. These plans may include:

9.5.b.A.1 use of alternative pesticides or methods in vulnerable areas;

9.5.b.A.2 sealing dry and abandoned wells;

9.5.b.A.3 changes in rate or timing of pesticide and fertilizer applications;

9.5.b.A.4 buffer strips to protect sinkholes, drainage well inlets and surface water;

9.5.b.A.5 alternate crop rotations;

9.5.b.A.6 conservation tillage to reduce pesticide and fertilizer runoff to sinkholes, drainage well inlets or surface water;

9.5.b.A.7 soil conservation practices such as

terracing, contouring, strip cropping and grassed waterways; and

9.5.b.A.8 nutrient management practices such as soil and tissue testing, changes in application timing and use of nitrification inhibitors.

9.5.b.B State-wide Education Efforts. In addition, state-wide educational efforts will stress the use of management techniques that improve efficiency in the use of pesticides and fertilizers including:

9.5.b.B.1 use of Integrated Crop Management techniques: scouting for pests, use of economic thresholds and considering all pest management options- chemical, cultural and biological;

9.5.b.B.2 use of alternative crop rotations to reduce pest problems or reduce nitrogen fertilizer needs;

9.5.b.B.3 alternative pesticide application techniques such a band and spot application;

9.5.b.B.4 proper calibration and operation of application equipment; and

9.5.b.B.5 intensive soil sampling of fields to allow adjustments in fertilizer and pesticide application rates.

9.5.c Second Tier Mandatory Management

9.5.c.A If monitoring detects levels of a pesticide or fertilizer that are already in excess of health-based standards or if voluntary management changes fail to reverse a trend which could cause standards to be exceeded in the future, within a vulnerable area, regulatory restrictions would be imposed by the Department of Agriculture. Limiting restrictions to specific vulnerable areas avoids penalizing non-contributory areas.

9.5.c.B Examples of restrictions include:

9.5.c.B.1 reductions in rates of application if reduced rates provide efficacious control of pests;

9.5.c.B.2 changes in application timing;

9.5.c.B.3 mandatory set-backs (buffer zones) from points where surface water directly enters groundwater;

9.5.c.B.4 use of specific formulations or additives to reduce leaching risk;

9.5.c.B.5 restricted use designation to limit application to certified applicators;

9.5.c.B.6 prohibition of certain application techniques such as chemigation, soil incorporation or injection;

9.5.c.B.7 required changes in irrigation techniques such as irrigation scheduling and soil moisture determination;

9.5.c.B.8 prohibiting use of certain chemicals in vulnerable areas; or

9.5.c.B.9 mandatory attendance to educational and training programs, ie. special certification for purchase and use.

61-22-10 INFORMATION DISSEMINATION

10.1 General. Many of the participating agencies involved in the development and implementation of the state management plan have existing programs designed to distribute information associated with their respective responsibilities. Joint efforts involving state agencies, dealers, manufacturers, state agricultural associations, state commodity groups and national associations, such as the Alliance for a Clean Rural Environment (ACRE), can improve the effectiveness of educational efforts and reach a wider audience. Communications media including magazine, newspapers, radio and television will be utilized.

10.1.a Three major communication avenues will be utilized: licensing and certification, field agents and public education on the application of pesticides and fertilizers.

10.1.b Audiences targeted for educational efforts include private applicators (certified and noncertified), dealers, commercial pesticide applicators, chemical sales representatives, turfcare operators, landowners, managers and home owners.

10.1.c On-going state-wide educational programs will be utilized at each level of enforcement to alert pesticide and fertilizer users of voluntary and mandatory management practices and penalties for violations. Mechanisms for such a program include: news releases, agricultural bulletin articles, direct mail, recertification programs, satellite educational broadcasts and special certification for specific active ingredients or use patterns.

10.2 State Agencies serving major educational roles include:

10.2.a The State Agricultural Extension Service in cooperation with the Department of Agriculture provides training for persons preparing for state department examinations as a means for qualifying for certification as private and commercial pesticide applicators (enabling use of Restricted Use Pesticides).

Training qualifying for continuing education required for maintaining certification is also provided. Training on proper pesticide and fertilizer use including groundwater protection practices is also provided to non-certified pesticide applicators. All training programs are periodically updated to include information on current use and application practices, including adoption of state management plans.

10.2.b The West Virginia Department of Agriculture will include information concerning groundwater protection and state management plans in testing materials for the certification of pesticide business, dealers, commercial and private applicators. Field agents will also publicize changes in regulations during site visits. The Department will also utilize the mass media to publicize state management plans.

61-22-11 MONITORING

11.1 General. A key element of the management strategy is the development of an anticipatory monitoring system to identify existing and emerging problems and to assess the success of the management plan.

11.1.a The West Virginia Department of Agriculture in cooperation with Division of Natural Resources or other appropriate state agencies will design a comprehensive groundwater monitoring program with an EPA reviewed Quality Assurance Quality Control (QA/QC) Plan. This plan specifies field sampling procedures including purging, collection and tagging of samples; collection of field/trip blanks; shipping methodology; and chain of custody procedures.

11.1.b Monitoring will include random monitoring of rural and public wells as well as repeated monitoring of a network of observation wells. Because of past, undocumented activities near domestic and public wells, it is often difficult to trace sources of pesticide and fertilizer contamination. For example, backsiphoning accidents can result in chemical detections many years after the incident. The use of observation wells installed for the sole purpose of groundwater monitoring eliminates some of the interpretation uncertainties inevitable with existing wells.

11.1.c Existing wells included in the network must meet the following criteria: wells should have sufficient construction information to evaluate the structural integrity of the well; surface protection such as a well house or concrete slab, must be adequate to prevent contaminants from entering the well via the land surface; preference should be given to shallow wells (<50 feet in total depth), with a few additional wells of the same depth but upgraded for comparison; such wells must not be hand dug and must be accessible for investigation and sample collection, including physical accessibility and a water collection point prior

to any treatment system. In addition, wells considered favorable for sampling will not have had pesticides or fertilizers stored, mixed, spilled, or disposed of within 500 feet of the wellhead. Questionable or unofficial data will be used to assist voluntary programs. Mandatory programs will only be initiated upon the obtainment of verifiable official data.

11.1.d The monitoring well network will be more heavily concentrated in areas that have been identified as vulnerable to potential contamination. Localities considered for observation well installation will be those areas with either confirmed or potential groundwater contamination problems; areas which have had pesticides or fertilizers known to be more subject to leaching applied in large quantities; areas known to contain excessive amounts of nitrate in the soil profile and/or groundwater; those areas which may be sensitive to groundwater pollution due to soil types and/or depth to the water table; or areas where past practices may have caused groundwater quality problems.

11.2 Laboratory Analysis

11.2.a A qualified laboratory will conduct pesticide and fertilizer analyses using standard EPA approved methods and good laboratory practices (GLP's) and operating under their QA/QC laboratory plan. Water samples determined to contain pesticides or fertilizers will be confirmed by split and repeat analysis. Wells with confirmed analysis will be resampled over time to determine if the sample was contaminated during collection, shipping or analysis and to determine concentration trends.

11.3 Site Investigations

11.3.a Accurate diagnosis of the causes of well contamination is essential to applying appropriate solutions. To aid in the evaluation of data and to identify problems practices and effective BMP's, a survey will be conducted at each sampling site. Wells with pesticide and fertilizer detections confirmed by repeated sampling over time, will receive a thorough follow-up investigation to determine potential causes of contamination, with particular emphasis on distinguishing point source causes of contamination from nonpoint source causes.

11.3.b Depth and type of well construction and any construction or maintenance deficiencies will be noted, including the potential for surface or shallow groundwater to enter the well. Potential point sources of contamination such as pesticide and fertilizer, storage mixing sites, spills and disposal will be noted. Crops grown within a quarter-mile radius in present and preceding years, pesticide and fertilizer use, application methods and rates will be determined. Specific practices will be noted such as terracing, contour tillage and planting, type of tillage

practice and irrigation/chemigation practices.

11.3.c Geographic and topographic conditions around the well and well use will be noted. The survey will include an inventory of potential contaminate sources within 500 feet of the well such a septic systems, livestock feedlots, landfills, underground storage tanks, golf courses, pesticide and fertilizer storage, tail water holding ponds, irrigation canals and ditches and location of spills. Within one-half mile of the well, locations of chemical plants and/or storage facilities, airports or landing strips, military bases, mines and lakes will be noted.

11.4 Monitoring Data Base

11.4.a All monitoring data collected by the West Virginia Department of Agriculture in addition to all monitoring data collected by other agencies will be entered into a central data base. Analysis of these data with respect to health-based water standards and concentration trends over time will be used to trigger voluntary or mandatory management changes. These data will also be used to evaluate predictive models. While predictive models may be used to trigger first tier, voluntary BMP's for chemicals of concern, models will not be used to initiate regulatory restrictions.

11.4.b Monitoring data from the observation wells in vulnerable areas will be used to assess the effectiveness of voluntary and mandatory BMP's and to determine if modifications in BMP's are necessary.

61-22-12 ACTIONS IN RESPONSE TO CONTAMINATION

12.1 If contamination is predicted based on chemical properties, vulnerability assessment and site vulnerability modelling; the prevention philosophy of the State Management Plan will require the development of voluntary BMP's to be in place. Educational programs designed to prevent contamination will focus on those products or practices that have the highest probability of impacting ground water quality.

12.2 When contamination is detected and confirmed by monitoring activities, the well owner will be notified and a site investigation will be conducted to determine if the cause as due to a point source or a nonpoint source.

12.3 If the contamination is determined to be caused by a point source, the case will be referred to the appropriate department for investigation of possible label or code violations and corrective action. Data will be entered in the data base. Concentrations detected will be compared to health-based standards and possible remediation considered.

12.4 NONPOINT SOURCE

12.4.a If the cause of contamination is determined to be due to nonpoint sources, data will be entered into the central date base, and additional wells in the area will be monitored and investigated. Using the best professional judgement, several options are available to the department.

12.4.b If health-based standards are currently exceeded, or if previously obtained monitoring data demonstrate an increasing trend of concentrations such that health-based standards might be exceeded in the future in the absence of changes in management, mandatory practices could be enacted, including possible restriction of use in vulnerable areas.

12.4.c If current levels of contamination do not exceed health-based standards and there is no documented trend toward exceedance, voluntary BMP's would be implemented along with an educational and awareness program in affected areas.

12.4.d Intensified monitoring would be carried out in the affected area to determine the success of BMP's. If concentrations found increase over time such that health-based standards might be exceeded in the predictable future, mandatory management practices would be imposed.

61-22-13 PUBLIC AWARENESS AND PARTICIPATION

13.1 A Pesticide and Fertilizer Water Quality Management Advisory Committee consisting of scientists with expertise in agriculture, pesticides and fertilizers, hydrogeology, well construction and maintenance and toxicology and growers will be appointed to provide input into development of Management Plans. Public comment will be sought on Management Plan components including voluntary and mandatory BMP's. There will be opportunity for public input through rulemaking processes should mandatory practices be required.

13.2 A public awareness program will publicize the State Management Plan and any adoption of chemical specific plans. This program will advise the agricultural community of opportunities to protect water resources and inform the public of water quality protection actions taken and will include but is not limited to: public hearings, newsletters, public notices, news releases, personal appearances, speaking engagements and select mailings.

13.3 Monitoring results following the confirmation of the presence of pesticides and fertilizers will be publicly disclosed along with their relationship to health-based standards. Public participation and cooperation in the monitoring program will be encouraged. All data (with the exception of the name of the owner and the exact location of the well to maintain confidentiality)

will be made available to individuals or organizations conducting research on groundwater contamination and groundwater protection practices.

61-22-14 RECORDS/REPORTING OF PROGRAMS PROGRESS

14.1 All monitoring records shall be compiled in a central data base so that short and long-term evaluations can be used to determine the effectiveness of groundwater protection activities. Records of results of all point source cases and possible remediation activities will be maintained.

14.2 Biennially the West Virginia Department of Agriculture will publish a progress report on all activities and make the report available to interested parties.

14.3 Quarterly reports on monitoring results and program activities will be made to EPA. An annual report of all confirmed pesticide and fertilizer detections along with comparative federal health-based standards and point/nonpoint source determination will be published and submitted annually to EPA and other interested parties. The West Virginia Department of Agriculture reserves the right to maintain confidentiality on location of tested wells and guarantee the right of privacy to well owners.

STATE OF WEST VIRGINIA
DEPARTMENT OF AGRICULTURE
State Capitol
Charleston, WV 25305

Cleve Benedict
Commissioner

SUMMARY OF COMMENTS
WEST VIRGINIA LEGISLATIVE RULE
TITLE 61 SERIES - 22

Generic State Management Plan For
Pesticides and Fertilizers in Groundwater

Notices of public hearing of this rule were sent to all licensed pesticide application business and licensed pesticide dealers in the state. In addition, a general news release was made concerning the proposed rule. Public hearings were conducted in Charleston on July 29, 1992 and in Morgantown on July 23, 1992. Oral comments specific to this rule were received at the hearings from Mr. Jerry Gass of the Southern States Cooperative Incorporated. In addition written comments were received from the West Virginia Farm Bureau and the CIBA-GEIGY Corporation.

The West Virginia Farm Bureau commented they felt the rule was satisfactory. They emphasized the need for an educational program. Education is the key to most regulatory programs and has been a key component of all Department of Agriculture pesticide programs since their inception in 1975. Educational programs are included in this generic management plan to protect groundwater from pesticides and fertilizers.

The Bureau also expressed concern about the money needed to fund this and other companion rules being proposed. The Groundwater Protection Act provides for a groundwater protection fund where fees are to be deposited. The allocation set aside for the Department of Agriculture to implement groundwater protection practices is $75,000.00. This is the sum reflected in the fiscal note submitted with the rule.

Mr. Jerry Gass stated that in general terms he supported the intent and content of the rule. However, he offered the following suggestions for revision.

PARAGRAPH 4.6- In line 4, after the word "reduce" insert the words "the potential for". This addition strengthens the rule and the change was adopted.

PARAGRAPH 6.2- In line 2, delete the word "potential"

and after the word "contamination" insert "in excess of established groundwater standards".

The deletion of the word "potential" was made as it believed this change strengthens the rule. However, "in excess of established groundwater standards" was not adopted. Many chemicals have no established groundwater standards. To adopt this language could allow increased contamination of groundwater just because a standard did not exist. As the Groundwater Protection Act is preventive in nature, the original proposed language is more appropriate to this rule. This rule is not a mandatory rule but a procedural rule providing guidance for future groundwater problems, real or potential, dealing with pesticides and fertilizers.

PARAGRAPH 6.3- The **CIBA-GEIGY Corporation** suggested their be a better distinction between voluntary and mandatory management plans such an agricultural chemical management plans either generic or specific. In West Virginia there is probably a greater use of pesticides and fertilizers in the non-agricultural sector than in the agricultural sector. In order to try and work their concerns into this rule, the words "chemical management plans" were inserted in line 4, after the word "practices".

PARAGRAPH 8.2.b- Mr. Gass recommended deleting everything after the word "conditions" in line 8. His concern was that improved analytical abilities can and will detect increasingly smaller amounts of chemicals, that do not necessarily reflect a degradation of groundwater. While this is true, newer predictive models will have the same effect. The purpose of this paragraph is serve as a means of identifying chemicals of concern. As such it is believed all means possible should be used to that end. Again this rule is a procedural rule for guidance in dealing with real or potential groundwater problems. After the data is gathered by whatever means, then a determination must be made as to a course of action. Other parts of this rule and other rules will be that determining factor.

PARAGRAPH 12.1- In line 1, Mr. Gass recommends adding "in excess of established water quality standards". In line 4, he recommends placing a period after the word "place" and deleting " without evidence of contamination". The recommendation of the change in line 1 was not adopted for the same reasons stated in the comments for paragraph 6.2. The recommendation for line 4 adds clarity to the paragraph and was adopted.

PARAGRAPH 12.2- In line 1 after the word "contamination", Mr. Gass again recommends inserting "in excess of water quality standards". This recommendation was not adopted for the same reasons stated in paragraph 6.2.

PARAGRAPH 12.3- Mr. Gass recommends placing a period after the word "considered" in line 6 and deleting the words "if standards are exceeded." This recomendation was adopted as it strengthens the rule.

PARAGRAPH 12.4.d- Mr. Gass recommends adding the word "predictable" just before the word "future" in line 4. This suggestion was adopted as it was deemed to be appropriate.

West Virginia Farm Bureau

Member of American Farm Bureau Federation

1 Red Rock Road, Buckhannon, WV 26201

304/472-3000

July 27, 1992

The Honorable Cleve Benedict
Commissioner of Agriculture
West Virginia Department of Agriculture
1900 Kanawha Blvd., East
Charleston, WV 25305

Copies sent to:
- Brenda Harper
- Barbara Smith
-W

RE: COMMENTS ON PROPOSED REGULATIONS

Title 61 - Series 8A - General Groundwater Protection Rules for Fertilizer and Manures

Title 61 - Series 8B - Primary and Secondary Containment of Fertilizers

Title 61 - Series 12H - Bulk Pesticides Operational Rules

Title 61 - Series 12I - Non-Bulk Pesticide Rules for Permanent Operation Areas

Title 61 - Series 12G - General Groundwater Protection Rules for Pesticides

Title 61 - Series 22A - Best Management Practices for Temporary Operational Areas of Non-Bulk Pesticides

Title 61 - Series 22 - Generic State Management Plan for Pesticides and Fertilizers in Groundwater

Dear Commissioner Benedict:

This is to respectfully comment on the proposed above-cited rules as they pertain to agriculture in West Virginia.

First, we would like to make some general comments on the regulations.

While we appreciate your decision to fully comply with the Groundwater Protection Act particularly 20-5M-6(c) which requires the various agencies and departments to promulgate rules as they may be necessary to implement the authority granted them, we feel that the regulations filed by your department exceed the intent of the law.

We can certainly understand your desire to take the lead on this important issue; but we believe that it will be difficult to implement some of these regulations until the Water Resources Board establishes standards as provided in 20-5M-6(a)(2). Obviously, there is chronological ambiguity in the statute.

We are also very concerned with the economic impact these regulations will have on the agricultural industry as well as state and local government. In several instances, the impact is not clear, however "significant".

Given the scope and impact of these regulations, adequate study must be done to determine as nearly as possible the financial impact these regulations will have on individuals, companies, state, county and local government.

The Groundwater Protection Act capped fees at $1 million and therefore did not intend to expand the cost to citizens, businesses and government.

We compliment you on the approach that was used in the Generic State Management Plan for Pesticides and Fertilizer in Groundwater. We feel these regulations comply with the law, particularly 20-5M-6(c) (1) thru (5), where voluntary cooperation is encouraged, to conduct studies, research, experiments, demonstrations, and to develop public education programs.

Following are the specific comments on each set of Regulations:

Title 61 - Series 6A - Groundwater Protection
Rules for Fertilizer and Manures

The fiscal note provides for an expenditure of $28,000 by the Department of Agriculture. Since the authority cited is 20-5M, we believe that these expenditures should be included in the Groundwater Protection Act Fee Schedule Regulations 47-CSR-58 which have been filed as emergency regulations by the Department of Natural Resources, and not taken out of the department's budget.

We are also very concerned about the economic impact on those farms that need to install manure holding facilities. The projected costs range from $12,000 to $100,000 with additional auxiliary equipment cost of $20,000 to $50,000. This could put some farms out of business. We would suggest that an in depth study be made on each site to determine if alternative methods are available.

We concur with your assessment that the impact on the agricultural community by using Best Management Practices will be low. However, we believe it will take an extensive education program by the Department of Agriculture, the Cooperative Extension Service and Soil Conservation Service. The West Virginia Farm Bureau is willing to provide any assistance that we can in this matter.

61-6A-6 Protection of Groundwater from Point Source

6.3 and 6.3a - We recommend that these two sub-sections be deleted. We feel that sections 6.2 and 6.2a adequately cover those areas that are most likely to cause pollution. The description in 6.3 and 6.3a are vague and leaves room for different interpretation by different people. These items would best be covered under voluntary best management practices.

6.4 - It is recommended that this sub-section be deleted. This statement is unclear. It is very difficult to determine the volume of manure that would be produced. It is also unclear as to what time frame is covered. Again, this item would best be covered under voluntary best management practices.

6.5 thru 6.11 - It is recommended that these sub-sections be deleted. These are generally considered to be non-point source and not point source. Again, we feel these areas would best be addressed under the voluntary best management program.

61-6A-7 - Protection of Groundwater from Non-Point Sources

7.1 thru 7.3g - It is recommended that these sub-sections be deleted and replaced by reference to the Soil Conservation Service Technical Guide.

The SCS manual provides a complete list of Best Management Practices. The BMP are developed so that they may be used for site specific locations.

The SCS also updates this manual as new technology is developed.

We believe that if the manual is referenced rather than listing a few of the items that are listed in the regulations, the farm community and the environment will be better served.

Title 61- Series 6B - Primary and Secondary
Containment of Fertilizers

Fiscal note - Again, we point out that if the regulations are being promulgated under the authority of Groundwater Protection Act, funds should come from that act and not from the budget of the Department of Agriculture.

Economic Impact - We are very concerned with the "very high" impact these regulations will have on the agricultural industry.

The $50,000 to $150,000 cost that retail firms will be required to spend is a considerable investment. If these firms do spend this kind of money, we believe that the cost of fertilizer to farmers will increase more than the $10-$20 that has been projected. Southern States Co-op projects $75/ton if the capitol costs are amortized over a 10 yr. period.

The other alternative that these businesses have is to not make the expenditure and not provide the service to farmers. If this happens, farmers may need to purchase fertilizer from out of state, incurring additional transportation cost and terrific inconvenience.

As is pointed out in the Economic Impact Statement, "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." We, therefore, recommend that these regulations be withdrawn until:

1. The Division of Natural Resources develops a central groundwater data management system, as provided in 20-5M-6(a) (2).

2. The Department of Agriculture develops procedures to identify currently unknown farmers and firms that will be affected by these regulations.

3. The Department of Agriculture develops a procedure to determine an accurate estimate of the cost to farmers and firms for the installation of the facilities required.

Title 61 - Series 12H - Bulk Pesticide Operational Rules

61-12-H-2 Definitions - 2.7 Recommends changing the definition of discharge to mean any spill, etc. outside of the secondary containment area. The purpose of the secondary containment is to prevent such "spills" from escaping.

Title 61 - Series 12I - Non-Bulk Pesticide Rules
for Permanent Operational Areas

Fiscal Note: The Groundwater Protection Act Fee Schedule establishes $75,000 from the Department of Agriculture for pesticides. These regulations as well as Series 12G indicate that $75,000 will be needed for each 12I and 12G.

We do not believe that the extra $75,000 should come from the Department of Agriculture's general funds.

Economic Impact on State Government

One must ask the question, "With the state in dire economic times and no indication that pesticides have contaminated groundwater, is the cost benefit ratio justified?"

Economical Impact on Political Subdivisions

Specific Industries and Groups of Citizens (Same as above.)

Economic Impact on Citizens/Public at Large

With an estimated total cost of implementation these regulations at $11,520,000 and the statement that "these costs would cause some small businesses to close", we respectfully request that these regulations be withdrawn.

We do not believe that it was ever the intent of the Legislature in passing the Groundwater Act to put people out of business, especially when there has been no indication that a problem exists.

Title 61-12G - General Groundwater Protection
Rules for Pesticides

Fiscal Note: $75,000 - We recommend that this money come from the Groundwater Protection Act Fees.

We totally agree with the program and policy statement listed in 61-12G-4.1 thru 4.4.

We would encourage the Department of Agriculture in Cooperation with other State and Federal Agencies to develop an aggressive education program on the use of Best Management Practices.

As stated in 4.4, we also agree that other steps may be necessary, but only after "valid predictive technology or valid groundwater data indicates that pesticides are contaminating the groundwater of the state and when technology develops to indicate the mandatory best management practices will be effective in the protection of groundwater".

Title 61 - Series 22A - Best Management Practices for Temporary Operational Areas of Non-bulk Pesticides

In general, these regulations are satisfactory. However, we are somewhat concerned by the lack of information that the department has on the number of sites that will be affected. Again, an educational program would be most beneficial.

Title 61 - Series 22 - Generic State Management Plan
for Pesticides and Fertilizer in Groundwater

Fiscal Note: $75,000 as stated previously, there is only a total of $75,000 in the Groundwater Protection Act Fee Schedule for use by the Department of Agriculture.

General Comments: It is our belief that it is this type of regulations that was intended by the Legislature. That is to say, prior to adopting other very costly regulations, one must first put in place an educational program, provide for an assessment and planning phase mandated in 61-22-8 and establish a monitoring program as mandated in 61-22-11.

Honorable Cleve Benedict
Commissioner of Agriculture
Page -6-

In summary, we feel that the regulations are chronologically not possible to implement at this time. If other agencies have not performed their statutory responsibility then these agencies should be held accountable for such non performance.

The 13,000 member West Virginia Farm Bureau considers itself and its individual members to be very environmentally responsible and our comments should be construed as constructive criticism. We trust you and your agency will view these comments favorably.

Sincerely,

Richard S. (Steve) Hannah
Executive Secretary

RSH/vg

West Virginia Holstein Association

Mrs. Cathy Brirvec, Secretary/Treasurer
620 Adaline Avenue
Morgantown, WV 26505
(304) 296-5028

cc: Bob Frame
Barbara

July 28, 1992

The Honorable Cleve Benedict
Commissioner of Agriculture
West Virginia Department of Agriculture
1900 Kanawha Blvd., East
Charleston, WV 25305

Dear Commissioner Benedict:

At our last board of directors meeting Steve Hannah, Executive Secretary, WV Farm Bureau, spoke to us about the following proposed legislation:

Title 61 - Series 6A - General Groundwater Protection Rules for Fertilizer and Manures

Title 61 - Series 6B - Primary and Secondary Containment of Fertilizers

Title 61 - Series 12H - Bulk Pesticides Operational Rules

Title 61 - Series 12I - Non-Bulk Pesticide Rules for Permanent Operation Areas

Title 61 - Series 12G - General Groundwater Protection Rules for Pesticides

Title 61 - Series 22 - Best Management Practices for Temporary Operational Areas of Non-Bulk Pesticides

Mr. Hannah supplied us with a copy of these regulations and I understand the deadline for comments on these regulations is July 30th.

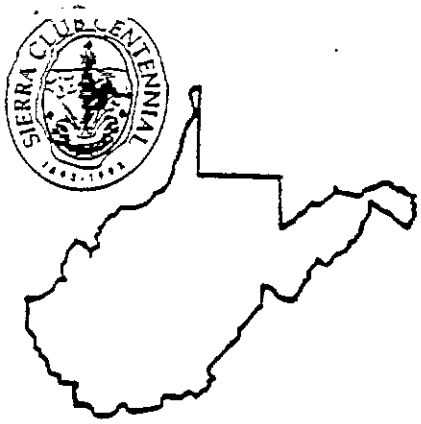
We discussed the economic impact these regulations would have on the agricultural industry as well as state and local government. Considering the following found in the Economic Impact Statement of Title 61, Series 6B - Primary and Secondary Containment of Fertilizers: "As there is no evidence that fertilizers 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", we feel adequate study must be done to determine the financial impact these regulations will have on individuals, companies, state, county, and local government.

Mr. Hannah has commented on specific parts of each proposed legislation and we trust you will view these comments favorably. We are concerned about the economic impact upon the dairy industry whi is already overburdened with expenses and with low milk prices. We appreciate the efforts of the WV Farm Bureau to reflect the concern of the agriculture industry in this state.

Sincerely,

Ivan McCombs

Ivan McCombs
President



SIERRA CLUB
WEST VIRGINIA CHAPTER

P. O. Box 4142
Morgantown, WV 26504

July 23, 1992

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

Dear Ms. Smith:

I am submitting the following comments regarding the proposed groundwater regulations on behalf of the West Virginia Chapter of the Sierra Club. We have long advocated strong groundwater protection legislation for West Virginia and are strong supporters of West Virginia's Groundwater Protection Act of 1991. Thus it is dissappointing to see such weak and ineffective rules being promulgated to enforce the Act. We believe that these proposed regulations violate the intent of the Legislature in passing the Groundwater Protection Act.

The Act states "it is the public policy of the state of West Virginia to maintain and protect the state's groundwater so as to support the present and future beneficial uses and further to maintain and protect groundwater at existing quality where the existing quality is better than that required to maintain and protect the present and future beneficial uses." It further states "Pollution of groundwater shall not be considered a beneficial use." The Legislature intended that the regulations proposed under the Act "provide for the establishment of groundwater protection programs consistent with this Article;" and "provide for such enforcement and compliance mechanisms as will assure the implementation of the state's groundwater management program." I cannot believe that these proposed regulations will even come close to fulfilling the intent of the law.

I wish to first cite several major gaps which exist in groundwater regulations currently being developed that are relevant to these regs. Specific comments on the weaknesses of the proposed regs and suggestions for their amendment will follow.

1. The issue of land application of various sludges, soil amendments, fly ash, and other solid wastes being applied as beneficial uses has not been addressed, in spite of frequent requests to do so. While many of these materials are actually solid wastes that are being disposed of on land, their organic matter or mineral nutrient content allows them to be exempted from solid waste regs under the beneficial use provisions. Although we do not wish to impede the application of those

materials that truly do present benefit to the land, many of these substances produce a leachate that may be high in heavy metals, toxic organic compounds, or strongly alkaline or acid forming constituents. The definition of fertilizers and manures must be expanded to include these so-called beneficial materials into a regulatory program in order to assure that these beneficial uses are in fact beneficial and not just a convenient way for industry to avoid solid waste regulations.

2. Underground storage tanks for fuels used on farms were not included in regulations proposed by DNR to regulate groundwater impacts from these tanks because "Dept. of Ag will handle those" or so environmentalists were told. While the volume of these tanks is generally smaller than for many commercial facilities, their potential to contaminate groundwater is still very significant. An enforceable maintenance and monitoring program is needed.

3. These regs do not contain adequate remediation requirements if contamination should occur. Furthermore, no mention is made of how victims of pollution are to be compensated. As such, there is very little enforcement incentive to encourage voluntary compliance with these regs. Obviously, prevention is considerably cheaper than remediation, unless the cost of remediation is borne only by downstream users and not the polluter. Without the "stick" of remediation and cleanup costs, there is no incentive to follow the carrot of prevention by complying with these regs. Thus the Dept. is left with an enforcement nightmare.

4. These regs also lack any mention of a monitoring program. Without even a semblance of a monitoring program, the regs are totally unenforceable. Section 5 Paragraph (d) of the Act clearly states that agencies shall develop practices to prevent groundwater contamination and states specifically that such practices shall include "remediation and monitoring".

Areas discussed in these regs which must be amended include:

5. Enforcement. Regulatory actions by the Commissioner are discretionary. The regs should be amended to make regulatory action by the Commissioner mandatory when pollution is occurring. Citizens must have some assurance that their groundwater will be protected and that action to stop pollution will be forthcoming. A regulatory agency should not have the discretion to knowingly ignore pollution which violates West Virginia's groundwater protection law. Other states, such as Wisconsin, have adopted regulations which require regulatory agencies to evaluate, among other regulatory responses, "the practicality of stopping the further release" of a pollutant that exceeds groundwater standards, and "the risks and benefits of continued operation of a facility, practice, or activity." Unless these enforcement options are spelled out and made mandatory when pollution is occurring, the enforcement program simply is not credible.

6. Definitions of regulated facilities. Series 12-I defines "non-bulk permanent operational areas" as those exceeding 300 gallons liquid, 3000 pounds dry weight, or 1500 pounds active ingredient handled over thirty days. Areas smaller than these are not regulated. Series 6A defines feedlots to be regulated as those with more than 1000 animal units (500 in vulnerable areas). Facilities handling much smaller volumes of pesticides, or feedlots with many fewer animal units, could present very serious risks to groundwater, yet these regs do not provide for any mandatory enforcement activities for these facilities. As such, these regs clearly fail in their legislatively-mandated purpose of "providing such enforcement and compliance mechanisms as will assure the implementation of the state's groundwater management program".

7. Timetable for implementation. Various timetables are proposed for mandatory portions of these regs, ranging from three years for bulk pesticide storage facilities, up to ten years for feedlots. I believe that these timetables are simply too long to provide any incentive for a credible groundwater protection program. Our experience has shown that, if given three years to implement a rule, nothing will be done for two and a half years. If given ten years, nothing will get done for nine and a half years. Is there any credible justification for delaying implementation of these rules more than two years?

8. Findings. Many of the policy statements not only contradict those of the Act, but are contradicted internally within the regs as well. For example, in Series 6A and in 12-G, paragraph 4.1, the Commissioner finds that current knowledge is not sufficient to develop mandatory practices that will effectively protect groundwater. Yet in the next paragraph, 4.2, he believes voluntary practices will be effective in protecting groundwater. How can voluntary practices be effective, while mandatory ones won't?

9. Making voluntary regs mandatory. Paragrahs 4.4 and 4.5 of series 6A and 12-G reserves the right of the Commissioner to make mandatory various practices when monitoring data indicate that pollution has occurred. This provision is directly contrary to the provisions of the law and to the principle of prevention. After contamination has occurred, it is too late to prevent it through mandatory rules. The Legislature mandated a policy to protect and maintain existing groundwater quality "unless it is established that (1) the measures necessary to preserve existing quality are not technically feasible or economically practical and (2) a change in groundwater quality is justified based upon economic or societal objectives." If the mandatory provisions are technically feasible after contamination has occurred, they are also feasible before. If the provisions are made mandatory after contamination has occurred, then the contamination clearly is not justified based on economic or societal objectives, otherwise mandatory provisions would not be needed. While I recognize the value of a phased in regulatory program, the

procedures identified in this section are clearly inconsistent with the intent of the Act as well as the processes spelled out in the Act.

10. Penalties. This section needs to spell out specific penalties for specific acts, or alternatively, indicate the liability incurred for contaminating groundwater. Paragraph 9.1 in particular clearly limits the Commissioner's ability to assess penalties and, furthermore, places a substantial burden of proof on him to show that violations were "grossly negligent, reckless or intentional". This is directly contrary to the need, which I have expressed above, for nondiscretionary enforcement actions for violations. The language throughout this section seems to imply that just about any excuse will relieve a polluter of any liabilities for penalties.

In conclusion, we urge the Dept. of Agriculture to revise and strengthen these regs to address our concerns and to bring them into compliance with the Groundwater Protection Act. We cannot support these regs as currently drafted because they undermine both the intent and the letter of the law. We anticipate submitting additional comments regarding specific language before the close of public comment. Thank you for the opportunity to present our views.

Sincerely,

James Kotcon

James Kotcon, Chair
West Virginia Chapter of the Sierra Club

cc:
Chuck Chambers, Speaker, WV House of Delegates
Dr. Eli McCoy, Chief, Water Resources Section

Agricultural Division

CIBA-GEIGY Corporation
P.O. Box 18300
Greensboro, North Carolina 27419
Telephone 919 632 6000

CIBA–GEIGY

July 24, 1992

Mr. Robert Frame
West Virginia Department of
Agriculture
1900 Kanawha Boulevard, East
Charleston, WV 25305

Dear Mr. Frame:

SUBJECT: COMMENTS FOR THE RECORD
WV 1204 - GROUNDWATER PROTECTION RULES FOR PESTICIDES
WV 1205 - BULK PESTICIDE OPERATION RULES
WV 1206 - NON-BULK PESTICIDE RULES FOR PERMANENT OPERATIONAL AREAS
WV ____ - BEST MANAGEMENT PRACTICE FOR TEMPORARY OPERATIONAL AREAS
WV 1207 - GENERIC STATE MANAGEMENT PLAN FOR PESTICIDES AND IN GROUNDWATER

The Agricultural Division of CIBA-GEIGY Corporation is a major producer and supplier of pesticides to West Virginia's important agricultural industry. As such, the Division is interested in regulatory proposals and management plans that may impact the users of these pest management tools. The purpose in this correspondence is to offer comment for the record on the above noted proposals as identified by sequence number and title.

The Agricultural Division is supportive of rules and practices that promote environmental protection while allowing the benefits of pesticides to be received by the public. CIBA-GEIGY supports the above subject proposals and encourages their collective adoption. We also commend you and your Department for the vision and wisdom illustrated by the balance seen in the proposals between environmental protection, reliance on education and best management practices to achieve Department environmental protection goals.

Enclosed are specific comments on the respective proposals that should be included in the hearing record.

Thank you for the opportunity to comment and to lend support for adoption of these proposals.

Sincerely,

Charles G. Rock

Charles G. Rock
Manager, State Government Relations

L502CCG0724CGR

Specific Comments on Proposed Rules

Submitted by
CIBA-GEIGY, Agricultural Division
(Underline Connotes Suggested Revisions)

WV-1204 - General Groundwater Protection Rules for Pesticides
(Title 61, Series 12-G)

§61-12G-3 Definitions

3.5 "Non-bulk pesticide" (Page 2)

The definition as proposed creates a gap between itself and the "Bulk Pesticide" proposed definition of 3.3. The non-bulk definition covers containers of less than 56 gallons liquid and 100 pounds dry while the bulk definition addresses quantities of greater than 55 gallons liquid or 100 pounds dry. This creates a "no-mans-land" for containers of 55 gallons 1 ounce to 55 gallons 15 ounces as meeting both definitions or neither. Similarly, a 100 pound weight container would follow outside either definition or meet both.

Suggested revision:

3.5 "Non-bulk pesticide" means any liquid or non-liquid pesticides distributed, xxx or repackaged in containers of fifty-five (55) gallons or less liquid or one hundred (100) pounds or less net dry weight and includes all pesticides not meeting the definition of bulk pesticides.

§61-12G-4 Program and Policy Statements

Subsection 4.4 (Page 3) provides for the phrase "mandatory best management practices" while in 4.2 speaks to "voluntary" plans. In order to ensure a clear and reasoned distinction between mandatory and voluntary, we strongly recommend that voluntary practices and plans be associated with best management plans while mandatory practices be termed agricultural chemical management plans or practices. This may necessitate definitions for the respective terms.

This suggestion further illustrates in policy outlined in subsection 4.2 and 4.3 as being the foundation of the West Virginia approach. Appropriate changes would be needed in subsection 4.4.

Suggested revision:

4.4 (Page 3) - The Commissioner reserves the right to develop mandatory agricultural chemical management plans either chemical specific or generic in nature by rule xxx

Specific Comments on Proposed Rules

Submitted by
CIBA-GEIGY, Agricultural Division
(Underline Connotes Suggested Revisions)

WV-1205 - Bulk Pesticide Operational Rules

3.2.e (Page 4) Change the word "distributing" in the first sentence to "distribution."

3.4. (Page 4) Strike the phrase "appropriate state" at end of sentence.

§61-12H-4 Bulk Pesticide Storage Facility Registry

4.1 (Page 4) - The proposal provides that the Commissioner "may" require annual notification by the product manufacturer or registrant without specifying the reason for such notification. This provision should either be deleted or further explanation citing such conditions as to when the Commissioner would require notice. The vagueness and ambiguity of the subsection would hopefully be removed. In addition, the phase "appropriate state regulatory agency" (Page 5) should be deleted and replaced with "Department."

§61-12H-5 Bulk Storage Facility Requirements

5.1 Storage (Page 5)

5.1.b - Primary Containments: Strike the phrase "shall be" from the end of the fourth line replacing it with the word "are." Strike the phrase "shall be" from the sixth line as it is inappropriate.

5.1.c.B (Page 5 and 6) - The proposal provides for 110% and 100% containment capacities for storage outside and under roof, respectively. You may wish to consider increasing these to 125% and 110%, respectively to be more consistent with U.S. EPA directions and current thinking. In so doing, the future may be less uncertain for these facilities.

5.1.c.D (Page 6) - The wording of the subpart implies that the Commissioner is to approve "floor designs" and "coatings" while such designs and coatings are only "encouraged." This should be clarified as to the principal intent.

5.1.c.E (Page 6) - A need for recognition of the use of "automatic sump pumps" as provided in 5.1.c.D is apparent. These pumps can be utilized under a defined set of circumstances in 5.1.c.D while in 5.1.c.E "approval of the Commissioner" is required. Approval by the Commissioner in this case appears warranted.

Suggested revision:

5.1.c.E - Floor or in-wall drains ~~xxx~~ sump pumps shall be prohibited within the secondary containment area <u>unless installed in accordance 5.1.c.D or</u> if approved by the Commissioner.

5.2 Operations

5.2.a (Page 6) - Change the word "operation" to "operating" in the first line.

5.2.b (Page 7) - The proposal provides for a 3-year effective date of the operational area containment requirement yet provides 5 years for the secondary containment requirements (5.1.c) at a bulk facility. The differentiation is not without justification; however, it appears that the intervals are opposite what would make good business and construction sense. The secondary containment is likely to be the most expensive part but fitting secondary containment to operational area containment already in existence may prove to be a tremendous challenge ending in environmental compromise. You may wish to consider a compromise of 4 years from enactment if 3 years for both requirements proves unacceptable per other testimony.

5.2.d (Page 7) From the second sentence strike the word "appropriate."

5.3.b.A (Page 8) - The proposal for inspection of containers and appurtenances weekly during the use-season should be expanded to include inspections while the bulk pesticide is in storage. It is a common practice to "warehouse" bulk pesticide during the non-use season on a contract basis. Inspections should likewise occur.

Suggested Revision:

5.3.b.A for bulk pesticide containers and appurtenances, at least weekly during the use season and whenever pesticide is stored therein.

Specific Comments on Proposed Rules

Submitted by
CIBA-GEIGY, Agricultural Division
(Underline Connotes Suggested Revisions)

WV-1206 - Non-Bulk Pesticide Rules for Permanent Operational Areas
(Title 61, Series 12-I)

§61-12I-3 Permanent Operational Areas

3.1 - The 5-year effective date of the proposal should be consistent with other implementation requirements for permanent operational and bulk containment. Again, 4 years, as suggested in §61-12G-5 appears to be reasonable. Three years may prove to be sufficient to allow for implementation in all cases.

Specific Comments on Proposed Rules

Submitted by
CIBA-GEIGY, Agricultural Division
(Underline Connotes Suggested Revisions)

WV-____ - Best Management Practices for Temporary Operational Areas of Non-Bulk Pesticide

The title is unclear and does not reflect the intent of the guidelines.

Suggested revision: Retitle to Best Management Practices Guidelines at Temporary Operational Area at Non-Bulk Pesticide Storage, Mixing and Loading Locations.

§61-22A-2 - Definitions

2.1 "Bulk Pesticide" and 2.3 "Non-Bulk Pesticide." See comments and suggested revisions noted §61-12G-3.5 to clarify respective definition gap.

Specific Comments on Proposed Rules

Submitted by
CIBA-GEIGY, Agricultural Division
(Underline Connotes Suggested Revisions)

WV-1207 - Generic State Management Plan for Pesticides and Fertilizer in Groundwater

It is suggested that plan include a clearer distinction between voluntary best management practices and mandatory practices by identifying the latter as agricultural chemical management plant either generic or specific. See comments under §61-12G-4 - Programs and Policy Statements.

GENERIC STATE MANAGEMENT PLAN FOR
PESTICIDES AND FERTILIZER IN GROUNDWATER (61-22)

Public Hearing to Consider Proposed Rule
Oral Comments

Building 2, Guthrie Agricultural Center
Charleston, West Virginia

July 21, 1992
1:00 p.m.

Present: Jerry H. Gass, Southern States Coop., Inc.
John McCallister, Southern States Coop., Inc.
W. B. Buffaloe, Rhone-Poulenc, Inc.

Barbara Smith, Director of Compliance Division, WVDA
Bob Frame, Director of Pesticides Division, WVDA
Dwayne O'Dell, Marketing & Development, WVDA
Paula Moore, Compliance Division, WVDA

Note: Due to the number of people present at the hearing held July 20 at 9:00 a.m. and to expedite the hearing schedule, Mr. Gass requested and was allowed the opportunity to comment on this rule earlier.

MR. GASS: I am Jerry Gass with Southern States. I appreciate the opportunity to comment on Series 22.

On Series 22, Generic State Management Plan for Pesticides and Fertilizer in Groundwater, in general terms, we support the intent and content of this proposed rule. There are some specific changes that we would suggest.

Paragraph 4.6., line four, after the word "reduce" insert "the potential for."

In paragraph 6.2., delete the word "potential" and after the word "contamination," insert "in excess of established groundwater standards."

Paragraph 8.2.b., we would recommend deleting everything after the word "conditions." The reason for this deletion is that

we disagree with the concept of implementing programs or taking actions merely on the basis of an increase in concentration. Again, as I have covered in speaking to two of the previous situations, there is a question of advancing technology making more and more minute amounts detectable when there is, indeed, no threat to environmental standards or human health in any way. Just simply, the technology continues to improve.

Paragraph 12.1., after the word "contamination," we would suggest adding, "in excess of established water quality standards." Then in line four, we recommend placing a period after the word "place" and deleting "without evidence of contamination."

Paragraph 12.2., line one, after the word "contamination," we would recommend inserting, "in excess of established water quality standards."

Paragraph 12.3., line six, we would recommend inserting a period after the word "considered" and delete "if standards are exceeded."

Then in line four of paragraph 12.4.d., just before the word "future," insert the word "predictable."

That concludes my comments. Again, I really appreciate the opportunity, both for the opportunity to make the comments and the opportunity to speed things up. Bob, Barbara, I really appreciate it.

MS. SMITH: Thank you, Jerry. Does anyone else want to make comments for the record at this point? Then we will recess the hearing and this is the end of the comment period for the

people who are here at this time.

(Hearing recessed at 10:15 a.m. and reconvened July 21 at 1:00 p.m.)

MS. SMITH: Since no one is present who wishes to comment, this hearing is now closed.

(Hearing closed at 1:30 p.m., July 21, 1992.)

GENERIC STATE MANAGEMENT PLAN FOR
PESTICIDES AND FERTILIZER IN GROUNDWATER (61-22)

Public Hearing to Consider Proposed Rule
Oral Comments

Room 315/316 Percival Hall, Forestry Building
Evansdale Campus, West Virginia University
Morgantown, West Virginia

Friday, July 24, 1992
1:00 p.m.

Present: John Baniecki, WVU Extension Service, Morgantown, WV
Mark McFarland, WVU Extension Service, Morgantown, WV
Dale Monks, WVU, Morgantown, WV
Peggy Powell, WVU Extension Service, Morgantown, WV
Luther Smith, WVU Extension Service, Morgantown, WV

Barbara J. Smith, Director of Compliance Division, WVDA
Bob Frame, Director of Pesticides Division, WVDA

No comments were made.

(Hearing closed at 1:30 p.m.)

KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

A. RENEE COE
Deputy Secretary of State

CATHERINE FREROTTE
Executive Assistant

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DONALD R. WILKES
Director, Corporations

(Plus all the volunteer help we can get)

FAX: (304) 558-0900

TO: Bob Moore Morris

AGENCY: Agriculture

FROM: JUDY COOPER, DIRECTOR, ADMINISTRATIVE LAW DIVISION

DATE: April 19, 1993

THE ATTACHED RULE FILED BY YOUR AGENCY HAS BEEN ENTERED INTO OUR COMPUTER SYSTEM. PLEASE REVIEW, PROOF AND RETURN IT WITH ANY CORRECTIONS. IF THERE ARE NO CORRECTIONS, PLEASE SIGN THIS MEMO AND RETURN IT TO THIS OFFICE. YOU WILL BE SENT A FINAL VERSION OF THE RULE FOR YOUR RECORDS.

PLEASE RETURN EITHER THE CORRECTED RULE OR THIS FORM WITHIN TEN (10) WORKING DAYS OF THE DATE YOU RECEIVED THIS REQUEST. CALL IF YOU HAVE ANY QUESTIONS.

SERIES: 22 TITLE: 61 Agriculture

* THE ATTACHED RULE HAS BEEN REVIEWED AND IS CORRECT.

SIGNED: Robert E Trum

TITLE OF PERSON SIGNING: Director, Pesticide Division

DATE: April 26, 1993

****

* THE ATTACHED RULE HAS BEEN REVIEWED AND NEEDS CORRECTING. THE CORRECTIONS HAVE BEEN MARKED.

SIGNED: _____

TITLE OF PERSON SIGNING: _____

DATE: _____

NOTE: IF YOU ARE NOT THE PERSON WHO HANDLES THIS RULE, PLEASE FORWARD TO THE CORRECT PERSON.