

**WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION**
Form #3

Do Not Mark in This Box

FILED

JAN 28 8 53 AM '93

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE

AND

FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: DCL&ER, Division of Environmental Protection TITLE NUMBER: 47

CITE AUTHORITY § 20-5M-5(d)

AMENDMENT TO AN EXISTING RULE: YES NO

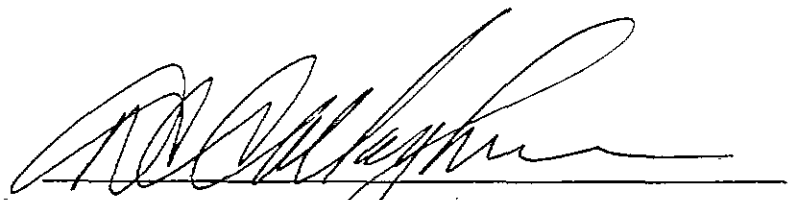
IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: 58

TITLE OF RULE BEING PROPOSED: Groundwater Protection Regulations

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE FOR THEIR REVIEW.



David C. Callaghan, Director
Division of Environmental Protection

13.20

FISCAL NOTE FOR PROPOSED RULE

Rule Title: Groundwater Protection Regulations 47 C.S.R. 58

Type of Rule: Legislative Interpretive Procedural

Agency: Division of Natural Resources

Address: Building 3, State Capitol Complex, Charleston, West Virginia

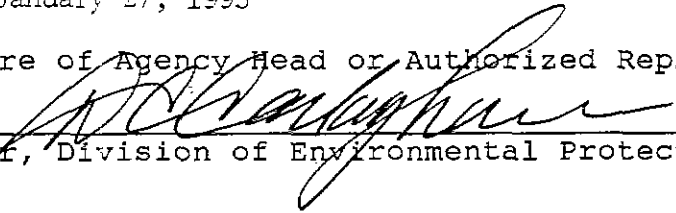
1. Effect of Proposed Rule	ANNUAL		FISCAL YEAR		
	Increase	Decrease	Current	Next	Thereafter
Estimated Total Cost	N.A.	N.A.	N.A.	N.A.	N.A.
Personal Services					
Current Expenses					
Repairs & Alterations					
Equipment					
Other					

2. Explanation of above estimates: As explained in the Responsiveness Summary accompanying this proposed rule, the rule is not expected to directly increase or decrease state revenues or costs, other than as described in the Fiscal Note accompanying the Groundwater Protection Act Fee Schedule rule, 47 CSR 55.
3. Objectives of this rule: These rules set forth a series of practices which facilities regulated by the Office of Water Resources must follow in order to protect the state's groundwater resources.
4. Explanation of Overall Economic Impact of Proposed Rule.
 - A. Economic Impact on State Government. This rule will regulate private industry. As such, it will not directly impact state government. To the degree that industry costs and revenues are impacted, the state may experience a secondary impact as tax and fee collections are affected. Since this rule will increase industry costs, state revenues, if affected, will likely decrease.
 - B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of citizens. This rule will impose substantial cost on industry, in order to comply with the Groundwater Protection Act of 1991. The practices and procedures, the modifications to existing facilities, and the additional features for new facilities, required by this rule, will all increase industry costs above those experienced previously.

C. Economic Impact on Citizens/ Public at Large. The Division of Environmental Protection has no way of accurately determining the economic impact on citizens or the public-at-large. If, however, the cost of compliance with this rule should cause any decrease in industrial activity, citizens and the public-at-large could be affected by increased employment in or in support of industry.

Date: January 27, 1993

Signature of Agency Head or Authorized Representative



Director, Division of Environmental Protection

DATE: January 21, 1993

TO: Legislative Rule-Making Review Committee

FROM: Department of Commerce, Labor and Environmental Resources; Division of Environmental Protection

LEGISLATIVE RULE TITLE: Groundwater Protection Regulations

1. Authorizing statute (s) citation: § 20-5M-5(d)

2.a. Date filed in State Register with Notice of Hearing: 6/16/92

2.b. What other notice, including advertizing, did you give of the hearing? Notices published in 5 newspapers across the state, copies of public notice sent affected state agencies, U.S. EPA, members of the Water Quality Advisory Committee, WV Chamber of Commerce and other interested parties.

2.c. Date of hearing (s): July 28, 1992

2.d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments;
Attached X No comments received _____

2.e. Date agency approved proposed Legislative Rule filed in State Register following public hearing: January 25, 1992

2.f. Name and telephone of agency contact: Frank Pelurie, 558-1052.

3. If the statute under which the rule was promulgated and submitted requires certain findings and determinations to be made as a condition precedent to their promulgation: N.A.

3.a. Date on which a notice of the time and place of hearing for the taking of evidence and a general description of the issues to be decided was filed in the State Register:

3.b. Date of hearing: _____

3.c. Date the required findings and determinations together with reasons therefor were filed in the State Register:

3.d. Findings and determinations, and reasons (attached).

FILED

TITLE 47
LEGISLATIVE RULES
DIVISION OF ~~NATURAL RESOURCES~~ ENVIRONMENTAL PROTECTION
DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES

JAN 28 8 53 AM '93
OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

SERIES 58
GROUNDWATER PROTECTION REGULATIONS

§ 47-58-1. General.

1.1. Scope and Purpose. -- This rule establishes a series of practices which must be followed by any person who owns or operates facilities or conducts activities subject to the provisions of chapter 20-5M-1 et seq. of the West Virginia Code and is subject to regulation by the Division of ~~Natural Resources~~, Environmental Protection's Office of Waste Management or Office of Water Resources, provided that this regulation does not apply to those facilities or activities which are under jurisdiction of the Division of Natural Resources and have been assigned/transferred to other regulatory agencies through valid agreements.

1.2. Authority -- West Virginia Code 20-5M-5(d)

1.3. Filing date --

1.4. Effective date --

§ 47-58-2. Definitions.

2.1. "Contaminant" means any material in a solid, liquid or gaseous state that has the potential to cause contamination.

2.2. "Contamination" means any man made or man induced alteration of the chemical, physical, biological, or radiological integrity of the groundwater, resulting from activities regulated under this rule, in excess of existing groundwater quality, unless that site has been granted a deviation or variance from existing quality as provided for in the West Virginia Groundwater Protection Act, or is subject to an order, permit, or other regulatory action that requires restoration or maintenance of groundwater quality at a different concentration or level.

2.3.2.1. "Director" means the director of the Division of Natural Resources Environmental Protection of the Department of Commerce Labor, and Environmental Resources or his authorized designee.

2.4.2.2. "Existing Facility" for the purpose of this regulation means any facility and/or activity which was in operation prior to the effective date of this regulation or which does not meet the definition of a new facility.

2.5. "Groundwater" means the water occurring in the zone of saturation beneath the seasonal high water table, or any perched water zones.

2.6.2.3. "Impoundment" means an area which is a natural topographic depression, man-made excavation, or diked area that is designed or improved in such a manner so as to hold an accumulation of contaminated surface runoff, process wastewater, product, or sewage, or any other liquid substance that could impact groundwater.

2.7.2.4. "Industrial Establishment" means any mill, factory, tannery, paper or pulp mill, mine, colliery, breaker or mineral processing operation, quarry, refinery, electric power generating facility, well, and each and every industry or plant or works, or activity in the operation or process of which industrial wastes, sewage, or other wastes are produced. Furthermore, any facility or activity not set forth above may be subject to any or all of the requirements of this rule at the director's discretion pursuant to Section 6 of this rule. This definition does not include electric power generation facilities, or private or publicly owned sewage treatment operations.

~~2.5. "Mitigate" means reparation for the loss of use of groundwater, including the replacement of a water source.~~

2.8. "Liner" means a continuous layer of natural or man-made materials, beneath and on the sides of an area, which restricts the downward or lateral escape of contaminants.

~~2.6. "Naturally Occurring Substance" for the purpose of this regulation means raw or processed coal.~~

2.9.2.7. "New Facility" for the purpose of this regulation means any facility and/or activity which begins construction 180 days or more initializes operation after the effective date of this regulation.

2.10.2.8. "Permit" means any license, certification, registration, permit, or any other approval granted by an agency authorized to regulate facilities or activities, which may have an impact on groundwater.

2.11.2.9. "Practice" means any regulation, rule, policy, permit requirement, or other appropriate regulatory action which is protective of groundwater.

2.12. "Runoff/Infiltration Control System" means any system which is designed to prevent contamination of groundwater from any materials stored in an outside material storage area, by either prohibiting stormwater from contacting the material, or by intercepting and properly disposing of stormwater which has become contaminated due to contact with the material.

2.13.2.10. "Secondary Containment" means utilizing dikes, berms, synthetic or natural

liner systems, double walled containment vessels, or any combination thereof to prevent contaminants from accidentally discharging into the environment.

~~2.11. "Small Business" means any facility or activity that has less than \$300,000.00 in gross receipts per annum.~~

§ 47-58-3. Incorporation by Reference.

3.1. Practices contained in or created under the authority of Chapter 20, Article 5A, Article 5E, Article 5F, Article 5G, Article 5H, and the legislative rules promulgated pursuant thereto, were enacted in part to protect groundwater and are hereby incorporated by reference into this rule.

§ 47-58-4. Practices Authorized by the Groundwater Protection Act Conflicting Provisions.

~~4.1. Recognizing that in certain cases, existing regulations are more protective, and in the event this rule conflicts with another applicable rule, the rule most protective of groundwater shall apply: existing regulations impose requirements that are more or less restrictive than the requirements of this rule, in the event that this rule conflicts with another applicable rule, the director shall determine which rule, or section(s) thereof, best complies with the intent of the Groundwater Protection Act, and require adherence to said rule or section(s) thereof. The director may, at his discretion, begin the formal regulatory process to remove the conflict between the regulations.~~

§ 47-58-5. Groundwater Protection Practices For Industrial Establishments.

~~5.1. Industrial establishments owned and/or operated by a small business may be exempted from certain requirements of this section at the director's discretion.~~

~~5.2. Outside Material Storage Areas (Coal, Raw Materials etc.)~~

~~5.2.1. Existing areas shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring wells may be necessary to perform this evaluation.~~

~~5.2.2. New areas shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems if necessary.~~

~~5.3. Loading and Unloading~~

~~5.3.1. Loading and unloading stations including but not limited to drums, trucks and railcars shall have spill prevention and control facilities and procedures. Spill containment~~

~~and cleanup equipment shall be readily accessible.~~

~~5.3.2. Product distribution facilities and bulk containers shall be designed to prevent spills and leaks.~~

~~5.4. Wastewater Impoundments (Holding, Storage, Equalization, Treatment, etc.)~~

~~5.4.1. Existing impoundments shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring wells may be necessary to perform this evaluation.~~

~~5.4.2. New impoundments shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems. Groundwater monitoring wells will be placed, if there is a potential for groundwater contamination.~~

~~5.5. Best Management Practices (BMP) Plans -- Plans are required for all Industrial Establishments.~~

~~5.5.1. BMP plans shall address groundwater as well as surface water. Particular areas to be addressed regarding groundwater protection methods include:~~

~~5.5.1.a. Outside manufacturing facilities;~~

~~5.5.1.b. Outside materials handling;~~

~~5.5.1.c. Equipment cleaning;~~

~~5.5.1.d. Construction activities; and~~

~~5.5.1.e. Maintenance activities.~~

~~5.5.2. BMP's should clarify that no wastes be used for deicing, fills, etc., unless provided for in existing regulations.~~

~~5.5.3. The industrial establishment BMP Plan should include the following provisions:~~

~~5.5.3.a. For all employees to be instructed and trained on their responsibility to ensure groundwater protection. Job procedures shall provide direction on how to prevent groundwater contamination;~~

~~5.5.3.b. Quarterly inspections conducted to ensure that all elements of the site's groundwater protection program are in place, properly functioning and appropriately~~

managed;

~~5.5.3.c. Equipment or structures installed to provide groundwater protection shall be inspected and maintained regularly for system integrity;~~

~~5.5.3.d. Maintenance procedures, including equipment preparation shall include appropriate provisions to protect groundwater; and~~

~~5.5.3.e. Subsurface boring (e.g., water wells, injection wells, soil boring, production wells, extraction wells, exploratory wells and groundwater monitoring wells) shall be constructed, operated and closed in a manner that protects groundwater.~~

~~5.6. Each industrial establishment should have a comprehensive groundwater protection plan which covers all aspects of activities which could potentially contaminate groundwater. Each industrial establishment shall conduct a groundwater assessment survey and prepare a groundwater protection plan containing the following:~~

~~5.6.1. An inventory of all operations that may reasonably be expected to contaminate the groundwater resources and contain an indication of the potential for soil and groundwater contamination;~~

~~5.6.2. A description of procedures designed to protect groundwater from the identified potential contamination sources;~~

~~5.6.3. A list of procedures to be employed in the design of any new operations;~~

~~5.6.4. A summary of all activities carried out under other regulatory programs that have relevance to groundwater protection; and~~

~~5.6.5. A discussion of all available information regarding the existing groundwater situation.~~

~~5.7. Implementation Schedule — In order to accomplish this task in a timely manner, the following schedule will be established.~~

~~5.7.1. Begin groundwater assessment survey upon promulgation of these regulations.~~

~~5.7.2. Begin collection of information on other regulatory activities upon promulgation of these regulations.~~

~~5.7.3. Complete assessment survey and collection of information and begin drafting of Groundwater Protection Plan (GPP) within six months of promulgation of these regulations.~~

~~5.7.4. Implement Groundwater Protection Plan within one year of promulgation of these regulations.~~

~~5.8. Impoundment Closure Requirements~~

~~5.8.1. All wastewater shall be treated and removed. All solids, sludges, etc. should be properly disposed of in a landfill.~~

~~5.8.2. If in-place closure is to be performed, stabilize, if necessary, unless determined innocuous.~~

~~5.8.3. Impoundments should be filled in, graded, capped and vegetated.~~

~~5.8.4. At impoundments which were previously existing and where groundwater contamination had been determined to exist requiring remedial action with continuing groundwater monitoring, the groundwater monitoring must continue until results assure adequate remedial action was taken.~~

~~5.8.5. If impoundments are closed due to a current problem, then an impermeable cap should be placed over impoundment when filled in and graded to facilitate surface water run-off.~~

~~5.9. Site Selection Criteria Determine if shallow groundwater zones or karst areas exist and locate away from these areas.~~

~~5.10. Pipelines And Pumps.~~

~~5.10.1. Pipelines shall be preferentially installed above ground.~~

~~5.10.2. On-site underground pipelines may only be installed if provided with leak detection and secondary containment measures, excluding sewer systems containing only sanitary wastewater, uncontaminated stormwater, raw water, condensate, etc.~~

~~5.10.3. Ditches shall not be installed as primary conveyances where contaminants may be present unless provided with appropriate impervious liners.~~

~~5.10.4. Pumps and ancillary equipment (e.g. valves, flanges, filters, condensate lines and instrumentation) shall be selected and installed to prevent or contain any spills or leaks.~~

~~5.11. Sumps And Tanks.~~

~~5.11.1. Sumps and tanks installed above ground shall have a leak detection system and secondary containment.~~

~~5.11.2. Sumps and tanks may only be installed underground for overriding safety, legal, security or fire protection concerns.~~

~~5.11.3. Sump design shall include provisions for inspection of system integrity. Inspections shall be performed on a quarterly basis.~~

~~5.11.4. Secondary containment is not required for sumps and tanks used only as secondary containment for other facilities.~~

~~5.12. Diking And Spill Containment.~~

~~5.12.1. Secondary containment (compatible with and impervious to the contaminants being stored or handled) shall be provided for all above ground tanks and vessels containing contaminants.~~

~~5.12.2. Secondary containment capacity shall be appropriate to the risk for containment failure and the potential to contaminate groundwater.~~

~~5.12.3. Drums shall be stored so that spills and leaks are contained. Measures shall be taken to prevent drum deterioration caused by weather or other environmental influences and damage due to handling.~~

5.1. Where the evaluation of an existing facility reveals that contamination is occurring, a schedule of compliance must be submitted by the facility or activity and approved by the director whereby the facility or activity must retrofit or improve or discontinue existing systems, activities, or procedures to make them, to the satisfaction of the director, protective of groundwater.

5.2. Subsurface borings (e.g., water wells, injection wells, soil boring, production wells, extraction wells, exploratory wells and groundwater monitoring wells) shall be constructed, operated and closed in a manner that protects groundwater.

5.3. Outside Material Storage or Disposal Areas

5.3.1. Existing areas used for storage or disposal of raw materials, products or wastes shall be evaluated for their potential to contaminate groundwater. Where potential exists, the areas shall have runoff/infiltration control systems. Placement of groundwater monitoring stations may be necessary to determine if contamination has occurred or is occurring.

5.3.2. New areas used for storage or disposal of raw materials, products or wastes shall be designed, constructed and operated to prevent release of contaminants to the groundwater, using liner systems if necessary. Groundwater monitoring stations may be necessary to assure protection of the groundwater resource.

Note: 46 C.S.R. 3 requires all spills and accidental discharges to be reported by calling 1-800-642-3074.

5.4. Loading and Unloading Areas; Distribution and Bulk Facilities.

5.4.1. Loading and unloading stations including but not limited to drums, trucks and railcars shall have spill prevention and control facilities and procedures as well as secondary containment, if appropriate or otherwise required. Spill containment and cleanup equipment shall be readily accessible.

5.4.2. Distribution facilities and bulk containers shall be designed/installed in such a manner so as to prevent spills and leaks from contaminating groundwater.

5.5. Impoundments (Holding, Storage, Equalization, Treatment, etc.)

5.5.1. Existing impoundments shall be evaluated for their potential to cause groundwater contamination. Where potential for contamination exists, action shall be taken to eliminate, to the degree practicable, the potential for groundwater contamination. In addition further evaluation may be necessary to determine if contamination has occurred and to address such contamination in accordance with the act. Placement of groundwater monitoring stations may be necessary to perform this evaluation.

5.5.2. New impoundments shall be designed and operated to prevent contamination of groundwater. New impoundments which are found to have the potential to contaminate groundwater shall use a liner or other appropriate control system. Groundwater monitoring stations may be necessary to assure protection of the groundwater resource.

5.6. Impoundment Closure Requirements

5.6.1. All wastewater shall be treated and removed. All solids and sludges shall be properly disposed of in place closure if approved by the director, or removed to a landfill, or incinerated, unless a beneficial reuse is allowed in existing regulations.

5.6.2. If in-place closure is to be performed, stabilize, if necessary, unless determined innocuous by the director.

5.6.3. Impoundments must be graded and leveled to the maximum extent possible including, where practicable, filling with soils or other material approved by the director, capped if the director determines necessary, and vegetated.

5.6.3.a. In the event the impoundment is subject to regulation by the West Virginia Dam Control Act (20-5D-1 et seq.) or the rules promulgated thereunder, it must be closed in accordance with applicable sections of both Articles (Chapter 20-5M and 20-5D).

5.6.4. Prior to closing an impoundment which has been found to be contaminating groundwater, a plan which includes, but is not limited to, details of capping, filling, grading, and runoff control must be submitted to the director for approval.

5.7. Pipelines, Ditches, Pumps, and Drums

5.7.1. Pipelines conveying materials which have the potential to contaminate groundwater shall preferentially be installed above ground.

5.7.2. Ditches shall not be installed as primary conveyances for materials which have the potential to contaminate groundwater unless provided with appropriate liners.

5.7.3. Pumps and ancillary equipment (e.g. valves, flanges, filters, condensate lines and instrumentation) handling materials that have the potential to contaminate groundwater shall be selected and installed to prevent or contain any spills or leaks.

5.7.4. Drums, containing materials that have the potential to contaminate groundwater, shall be stored so that spills and leaks are contained. Measures shall be taken to control drum deterioration and/or damage due to handling.

5.8. Sumps and Tanks.

5.8.1. Above-ground storage tanks shall have secondary containment that is appropriate considering the potential to contaminate groundwater. Such secondary containment shall be adequately designed and constructed to contain the materials for a time sufficient to allow removal and disposal without additional contamination of groundwater, but in no case will that time be less than seventy-two (72) hours.

5.8.2. Under-ground tanks containing materials which have the potential to contaminate groundwater shall be designed, constructed, and operated utilizing leak detection or secondary containment, or other appropriate controls that are capable of preventing groundwater contamination.

5.8.3. New tanks containing materials that have the potential to contaminate groundwater may only be installed underground for overriding safety, legal, security or fire protection concerns.

5.8.4. Sumps containing materials which have the potential to contaminate groundwater shall be designed, constructed, and operated utilizing leak detection or secondary containment, or other appropriate controls that are capable of preventing groundwater contamination.

5.8.5. Secondary containment is not required for sumps and tanks used only as secondary containment for other facilities.

5.9. Monitoring

5.9.1. Existing facilities not currently monitoring groundwater shall do so if required by the director.

5.9.2. The director may require such other baseline data and monitoring as he determines appropriate to meet the requirements of these regulations or the Act.

5.9.3. Groundwater monitoring stations shall be located drilled and constructed in a manner that allows accurate determination of groundwater quality and levels, and prevents contamination of groundwater through the finished well hole or casing.

5.9.4. Groundwater monitoring stations shall be designed and installed in accordance with applicable rules promulgated pursuant to the Act.

5.9.5. All groundwater monitoring stations shall be accurately located utilizing latitude and longitude by surveying, or other acceptable means, and the coordinates shall be included with all data collected.

5.9.6. Data Management - The director may at his discretion require submittal of any or all groundwater monitoring data collected in association with a regulated activity, and may further specify an electronic format in which the data is to be submitted.

5.10. Site Selection Criteria -- Facilities or activities must determine if they are planning to locate or expand into areas of karst, wetlands, fault(s), subsidence, or delineated wellhead protection areas, as determined by the Bureau of Public Health. If areas of karst, wetlands, fault(s), subsidence, delineated wellhead protection areas or other areas determined by the director to be vulnerable based on geologic or hydrogeologic information, are determined to exist then the facility or activity design must adequately address the issues arising from locating in the area(s) of a potentially more vulnerable groundwater resource.

5.11. Each industrial establishment shall have a comprehensive groundwater protection plan (GPP). Each GPP shall contain the following:

5.11.1. An inventory of all operations that may reasonably be expected to contaminate the groundwater resources with an indication of the potential for soil and groundwater contamination from those operations;

5.11.2. A description of procedures designed to protect groundwater from the identified potential contamination sources, with specific attention given to:

5.11.2.a. Manufacturing facilities;

5.11.2.b. Materials handling;

- 5.11.2.c. Equipment cleaning;
- 5.11.2.d. Construction activities;
- 5.11.2.e. Maintenance activities;
- 5.11.2.f. Pipelines carrying contaminants; and
- 5.11.2.g. Sumps and tanks containing contaminants.

5.11.3. A list of procedures to be employed in the design of any new equipment/operations;

5.11.4. A summary of all activities carried out under other regulatory programs that have relevance to groundwater protection; and

5.11.5. A discussion of all available information reasonably available to the facility/activity regarding existing groundwater quality at, or which may be affected by the site.

5.11.6. A clarification that no wastes be used for deicing, fills, etc., unless provided for in existing regulations.

5.11.7. Provisions for all employees to be instructed and trained on their responsibility to ensure groundwater protection. Job procedures shall provide direction on how to prevent groundwater contamination;

5.11.8. The GPP shall include provisions for quarterly inspections to ensure that all elements and equipment of the site's groundwater protection program are in place, properly functioning and appropriately managed;

5.12. Implementation Schedule -- In order to accomplish this task in a timely manner, the following schedule will be established.

5.12.1. Within one year of the effective date of these regulations, all industrial establishments shall complete and implement a Groundwater Protection Plan (GPP). The GPP shall be based on a groundwater assessment survey and an evaluation of other applicable groundwater protection regulations.

5.12.1.a. Failure to follow any practice set forth in the GPP constitutes a violation of this regulation.

5.12.2. For new facilities, the GPP shall be completed prior to construction.

5.12.3. The GPP must be available on site at all times after one year from

the effective date of these regulations. The GPP is to be submitted and reviewed as part of the facility's or activity's permit application/renewal process. However, the director may review the GPP at any time.

5.12.4. The director may require modification to GPP's to assure adequate protection of groundwater. Further the director may, during review of a GPP require such other information as he reasonably needs to evaluate the plan.

5.12.5. Effect of groundwater certification for facilities or activities with permits.

5.12.5.a. GPP's for those facilities or activities who are required to obtain a permit will be administered through the appropriate permitting program. Groundwater certification will be incorporated into the issuance of the permit, only if all pertinent requirements of the act and rules promulgated thereunder have been met. If a compliance schedule is determined necessary to meet the requirements of the act the schedule shall be addressed in the facility/activity permit.

5.12.6. Groundwater certification for facilities or activities not required to obtain a permit - reserved.

5.12.7. Adherence to a GPP does not relieve the facility/activity of any obligation to comply with any other state, federal or local rule, regulation, law or act.

~~§ 47-58-6. Criteria Applicable To Facilities Who Generate Electric Power.~~

~~6.1. Groundwater Protection Practices:~~

~~6.1.1. Outside Material Storage Areas (Coal, Raw Materials, Loading, Unloading, Etc.)~~

~~6.1.1.a. Existing areas shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring wells may be necessary to perform this evaluation:~~

~~6.1.1.b. New areas shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems, runoff and/or infiltration control systems, if necessary. Groundwater monitoring wells may be necessary to assure protection of the groundwater resources.~~

~~6.1.2. Wastewater Impoundments (Holding, Storage, Equalization, Treatment, Etc.)~~

~~6.1.2.a. Existing impoundments shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff control systems. (Placement of groundwater monitoring wells may be necessary to perform this evaluation.)~~

~~6.1.2.b. New impoundments shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems, if necessary.~~

~~6.2. Groundwater Protection Plan.~~

~~6.2.1. Each facility should have a comprehensive groundwater protection plan which covers all aspects of activities which could potentially contaminate groundwater. Each facility shall conduct a groundwater assessment survey and prepare a groundwater protection plan containing the following:~~

~~6.2.1.a. Specific identification of all plant operations that may reasonably be expected to impact negatively on the groundwater resources;~~

~~6.2.1.b. A description of procedures designed to protect groundwater from the identified potential contamination sources;~~

~~6.2.1.c. A list of procedures to be employed in the design of any new operation;~~

~~6.2.1.d. A summary of all activities carried out under other regulatory programs that have relevance to groundwater protection; and~~

~~6.2.1.e. A discussion of all available information regarding the existing groundwater situation.~~

~~6.2.2. Development of a Best Management Practices (BMP) Plan to address groundwater protection procedures for the above activities. Particular areas to be detailed include outside materials/waste handling, equipment cleaning, construction activities and maintenance activities. BMPs should also clarify that no wastes be used for deicing, fills or any other use which could negatively impact groundwater, unless a reuse is provided for in existing regulations.~~

~~6.2.3. In order to accomplish this task in a timely manner, the following schedule will be established.~~

~~6.2.3.a. Begin ground water assessment survey upon promulgation of these regulations.~~

~~6.2.3.b. Begin collection of information on other regulatory activities upon promulgation of these regulations.~~

~~6.2.3.c. Complete assessment survey and collection of information and begin drafting of Groundwater Protection Plan (GPP) within six months of promulgation of these regulations.~~

~~6.2.3.d. Implement Groundwater Protection Plan within one year of promulgation of these regulations.~~

~~6.3. Impoundment Closure Requirements~~

~~6.3.1. All wastewater shall be treated and removed.~~

~~6.3.2. All solids, sludges, etc. should be properly disposed of or reused in accordance with the Solid Waste Management Regulations.~~

~~6.3.3. If in-place closure is to be performed, stabilize, if necessary, unless determined innocuous.~~

~~6.3.4. Impoundments should be graded and leveled to the maximum extent possible including, where practicable, filling with soils or other material approved by the director, capped if the director determines necessary, and vegetated.~~

~~6.3.5. Impoundments which were previously existing and where groundwater contamination has been determined to exist requiring remedial action will require continuing groundwater monitoring until results assure adequate remedial action was taken.~~

~~6.3.6. If impoundments are closed due to a current problem, then an impermeable cap must be placed over the impoundment when filled, and graded to facilitate surface water run-off.~~

~~6.4. Site Selection Criteria Determine if shallow groundwater zones or karst areas exist and will be vulnerable to the proposed activity. Should such conditions be present, the facility design shall be modified to protect the resources. Additional monitoring may be required to assure protection of the groundwater resources.~~

~~6.5. Pipelines and Pumps.~~

~~6.5.1. Pipelines shall be preferentially installed above ground.~~

~~6.5.2. On-site underground pipelines may only be installed if provided with leak detection and secondary containment measures, excluding systems containing only sanitary wastewater, contaminated stormwater, raw water, condensate, ash, etc.~~

~~6.6. Sumps and Tanks.~~

~~6.6.1. Tanks, reservoirs, and basins installed above ground shall have impervious secondary containment. Such structures will also employ a leak detection system if located in an isolated area (i.e. not inspected by personnel at least every 48 hours).~~

~~6.6.2. Underground Storage Tank regulated sumps and tanks shall meet all the applicable groundwater protection requirements (leak detection, corrosion protection, overfill protection, etc.).~~

~~6.7. Remedial Action.~~

~~6.7.1. Electric power facilities shall be subject to the remediation procedures set forth in section 47-58-13 of this regulation.~~

§ 47-58-6. Applicability To Facilities Or Activities Not Included In The Definition Of An Industrial Establishment.

6.1. Recognizing that facilities and activities exist, which either have contaminated or have the potential to contaminate groundwater, and do not meet the definition of an industrial establishment as set forth in this rule, it becomes necessary and is hereby authorized, for the director to require any facility or activity to comply with any or all of the requirements of this rule which the director determines to be necessary for the protection or maintenance of the groundwater resource.

6.2. The director must provide a written notification specifying which Section(s) of this rule will be enforced, before compliance with this rule or any provision thereof is required from any facility or activity not included in the definition of an industrial establishment

§ 47-58-7. Groundwater Protection Practices For Private Or Publicly Owned Sewage Treatment Operations. (reserved)

~~§ 47-58-8. Criteria Applicable To New Facilities Or New Activities Not Specified In Sections 5, 6, 7, 14, or 15.~~

~~New facilities or new activities shall be designed to be protective of groundwater and shall incorporate the following minimum design principles. In addition to these minimum design principles additional measures may be required if deemed necessary by the director to be protective of groundwater.~~

~~8.1. New facilities or activities which have the potential to impact groundwater quality, at the director's request, shall install and sample a sufficient number of groundwater monitoring wells, prior to facility or activity operation, to determine representative background groundwater quality for areas of the site which will be developed/used/potentially impacted.~~

~~8.1.1. Such wells shall remain in service until the director determines that the~~

~~threat of contamination from the facility or activity has ceased.~~

~~8.1.2. Impoundments, regardless of size, that may impact groundwater quality shall be lined in such a manner which will prevent the migration of contaminants into groundwater. Impoundments shall also be designed utilizing runoff control systems in order to minimize stormwater influx.~~

~~8.1.3. Secondary containment is required for any process or storage activity, other than impoundments and bulk storage areas for naturally occurring substances, in which materials are stored, handled, or used that may impact groundwater quality.~~

~~8.1.4. Bulk storage areas for naturally occurring substances shall employ runoff and infiltration control systems to prevent the migration of contaminants into the groundwater.~~

~~8.2. Pipelines and Pumps.~~

~~8.2.1. Pipelines shall be preferentially installed above ground.~~

~~8.2.2. On-site underground pipelines which convey or transmit any substance which may impact groundwater quality may only be installed if provided with leak detection and secondary containment measures, excluding systems containing only sanitary wastewater.~~

~~8.3. Sumps and Tanks.~~

~~8.3.1. Tanks, reservoirs, and basins which contain any substance which may impact groundwater quality, installed above ground shall have impervious secondary containment. Such structures will also employ a leak detection system if located in an isolated area (i.e. not inspected by personnel at least once every 48 hours) and requested by the director.~~

~~8.3.2. Underground storage tank regulated sumps and tanks shall meet all the applicable groundwater protection requirements (leak detection, corrosion protection, overflow protection, etc).~~

§ 47-58-8. Prohibitions.

8.1. It shall be unlawful for any person, unless an authorization has been issued by a groundwater regulatory agency, to deliberately allow crude oil, or any petroleum product derived from crude oil, or septage, or natural gas, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be deliberately allowed to flow onto or under the land surface in such a manner that could impact groundwater quality.

8.2. Groundwater quality may not be impacted by any facility operation or any activity

unless 1) a valid permit exists and/or 2) the director has taken action pursuant to section(s) 20-5M-5 (f) through (l) of the W.Va. Code.

~~§ 47-58-9. Criteria Applicable To Existing Facilities Or Existing Activities Not Specified In Sections 5, 6, 7, 14, or 15.~~

~~Existing facilities or activities shall take such action as necessary to prevent groundwater contamination.~~

~~9.1. Where it can be demonstrated to the director that existing facility or activity design is such that no groundwater contamination is occurring, continued verification will be the minimum requirement. Provided that if new construction occurs or if activities change they shall be done in a manner which complies with Section 8 above. Furthermore notification to the director must be made, in writing, 180 days prior to any operational modification.~~

~~9.2. Where it is determined that an existing facility or activity is contaminating groundwater the facility or activity must retrofit or improve or discontinue existing systems, activities, or procedures to make them, to the satisfaction of the director, protective of groundwater. The director may provide a schedule of compliance for completing the work if necessary. Furthermore the facility or activity may be directed to begin remedial actions pursuant to section 13.~~

§ 47-58-9. Remediation.

9.1. The Division has the authority to order persons to conduct remedial actions. The division encourages agreements for investigation and cleanups in appropriate cases.

9.1.1. The use of permanent solutions to the maximum extent practical to correct groundwater contaminations is preferred.

9.1.2. Cleanup actions shall not rely primarily on dilution and dispersion of the substance if active remedial measures are technically and economically feasible, as determined by the director.

9.1.3. Adequate groundwater monitoring shall be conducted to demonstrate control and containment of the substance. The director shall specify which parameters should be monitored in a remedial operation. Groundwater monitoring must continue until results assure adequate remedial action was taken.

9.2. In addition to any required remediation the director may order the facility or activity to compensate for the loss of beneficial use of groundwater, or for any significant adverse impact to groundwater.

9.3. Remediation Guidelines. (reserved)

~~§ 47-53-10. Operational Management For Facilities Or Activities Not Specified In Sections 5, 6, 7, 14, or 15.~~

~~10.1. Any facility or activity, upon receipt of notification from the director, must conduct a groundwater assessment and prepare a comprehensive groundwater protection plan (GPP) which covers all aspects of activities which could potentially contaminate groundwater including, but not limited to, the following:~~

~~10.1.1. Specific identification of all operations that may reasonably be expected to impact groundwater;~~

~~10.1.2. Descriptions of plans, including spill control measures and waste minimization plans, associated with these identified potential sources designed to protect the resource;~~

~~10.1.3. A list of design criteria to be employed in the design of any new operations;~~

~~10.1.4. A summary of all activities carried out under other regulatory programs that have relevance to groundwater protection;~~

~~10.1.5. Determine if any portion of the facility or activity is located within a designated Wellhead Protection Area;~~

~~10.1.6. A discussion of all available information regarding the existing groundwater situation.~~

~~10.2. The director may request that additional information be provided in the plan at any time.~~

~~10.3. In order to accomplish this task in a timely manner, the following schedule will be established:~~

~~10.3.1. Begin groundwater assessment survey upon notification of the director.~~

~~10.3.2. Begin collection of information on other regulatory activities upon notification by the director.~~

~~10.3.3. Complete assessment survey and collection of information and begin drafting of Groundwater Protection Plan (GPP) within six months of notification by the director.~~

~~10.3.4. Fully implement Groundwater Protection Plan within one year of notification by the director.~~

~~10.3.5. Update or revise the GPP on a biennial basis, or before substantive operational changes or new construction occurs.~~

§ 47-58-10. Fees.

10.1. Failure to remit fees when and as due as required in 47 CSR 55 is a violation of these regulations.

§ 47-58-11. Impoundment Closure Requirements Not Specified In Sections 5, 6, 7, 14, or 15.

~~11.1. All fluids shall be removed and disposed of in an acceptable manner. All solids, sludges, etc. must be properly disposed of or reused in accordance with the Solid Waste Management Regulations 47 C.S.R. 38.~~

~~11.2. If in place closure is to be performed, impoundment contents must be stabilized, unless determined innocuous.~~

~~11.3. Impoundments must be filled, graded and leveled to the maximum extent possible, covered with an impervious cap, if the director determines necessary, and vegetated.~~

~~11.4. Impoundments which were previously existing and where groundwater contamination had been determined to exist requiring remedial action with continuing groundwater monitoring, the groundwater monitoring must continue until results assure adequate remedial action was taken.~~

~~11.5. If impoundments are closed due to an impoundment related groundwater contamination event, and remedial action has been completed, an impermeable cap must be placed over the impoundment when filled and graded.~~

§ 47-58-11. Enforcement.

11.1. Any person who violates the act or these regulations shall be subject to civil and criminal penalties, injunctive relief, enforcement orders, and procedures as set forth in Section 10 of the Act.

11.2. The appeal and review procedures set forth in Section 11 of the Act shall be applicable to actions arising under these regulations.

11.3. Civil penalties for violations of these regulations may be assessed by the director in accordance with 47 CSR 56.

§ 47-58-12. Prohibitions.

~~12.1. It shall be unlawful for any person, unless an authorization has been issued by a groundwater regulatory agency, to deliberately allow crude oil, or any petroleum product derived from crude oil, or septage, or natural gas, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be deliberately allowed to flow onto the land surface in such a manner that could impact groundwater quality.~~

~~12.2. Groundwater quality may not be impacted by any facility operation or any activity unless 1) a valid permit exists and/or 2) the director has taken action pursuant to section(s) 20-5M-5 (f) through (l) of the W. Va. Code.~~

§ 47-58-12. Waiver Provisions.

The director may, to the extent authorized by the act, waive some or all of the requirements of this rule upon determining in writing that such requirements are not necessary to protect groundwater from contamination.

§ 47-58-13. Remediation.

~~13.1. The Division has the authority to order persons to conduct remedial actions. The division encourages agreements for investigation and cleanups in appropriate cases.~~

~~13.1.1. The use of permanent solutions to the maximum extent practical to correct groundwater contaminations is preferred.~~

~~13.1.2. Cleanup actions shall not rely primarily on dilution and dispersion of the substance if active remedial measures are technically and economically feasible.~~

~~13.1.3. Adequate groundwater monitoring shall be conducted to demonstrate control and containment of the substance. The director shall specify which parameters should be monitored in a remedial operation.~~

~~13.2. In addition to any required remediation the director may order the facility or activity to mitigate for the loss of use, or for any significant adverse impact to groundwater.~~

~~13.3. Remediation Guidelines. (reserved)~~

§ 47-58-13. Requirements For Fuel Storage Tanks Not Subject To Regulation Under This Rule or Chapter 20, Article 5H of the W. Va. Code. (reserved)

~~§ 47-58-14. Requirements For Fuel Storage Tanks Not Subject To Regulation Under Chapter 20, Article 5H of the W. Va. Code. (reserved)~~

§ 47-58-14. Requirements For Reuse Of Sludges. (reserved)

~~§ 47-58-15. Requirements For Reuse Of Sludges Generated By Facilities Permitted Under Chapter 20, Article 5A Of The W. Va. Code. (reserved)~~



DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
OFFICE OF THE SECRETARY

State Capitol, Room R-151
Charleston, West Virginia 25305-0310
Telephone: (304) 558-3255
Fax No.: (304) 558-4983

GASTON CAPERTON
Governor

JOHN M. RANSON
Cabinet Secretary

June 15, 1992

J. Edward Hamrick III, Director
Division of Natural Resources
Building 3, Room 669
Charleston, West Virginia 25305

FILED
JUN 16 1992
OFFICE OF THE SECRETARY
DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES
STATE CAPITOL BUILDING
CHARLESTON, WEST VIRGINIA

RE: Proposed Rules - Title 47, Series 58 (Groundwater
Protection Regulations)

Dear Ed:

Pursuant to West Virginia Code §5F-2-2(a)(12), I hereby
consent to the proposal of the rules specified above.

You may attach a copy of this letter to your filing with the
Secretary of State as evidence of my consent.

Sincerely yours,

John M. Ranson
John M. Ranson
Cabinet Secretary

JMR:cjb
B:RUL-DNR.CJB

PREAMBLE TO A PROPOSED RULE
CONCERNING
GROUNDWATER PROTECTION REGULATIONS

FILED
JUL 28 1992
U.S. DEPARTMENT OF COMMERCE
DIVISION OF NATURAL RESOURCES

- AGENCY:** Department of Commerce, Labor, and Environmental Resources; Division of Natural Resources.
- REGULATION:** Title 47, Series 58, "Groundwater Protection Regulations."
- ACTION:** Filing of a Proposed Rule, Notice of a Public Hearing, and acceptance of written comments.
- SUMMARY:** This rule establishes a series of practices which are to be followed by any person who owns or operates facilities or conducts activities subject to the provisions of chapter 20-5M-1 et seq. of the West Virginia Code and who is subject to regulation by the Division of Natural Resources.

A Public Hearing will be held on the date and at the location as follows:

July 28, 1992, 7:00 p.m.

Air Pollution Control Building
Conference Room
1558 Washington Street, East
Charleston, West Virginia

Written comments received on or before 4:00 pm July 29, 1992 will be accepted. Written comments should be sent to:

Laidley Eli McCoy, Chief
DNR, Water Resources Section
1201 Greenbrier Street
Charleston, West Virginia 25311
Attention: Patrick Campbell

DEPARTMENT OF COMMERCE LABOR AND ENVIRONMENTAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

RESPONSIVENESS SUMMARY
December 1992

Proposed Rule: "Groundwater Protection Regulations"

The West Virginia Division of Environmental Protection (DEP) has received thoughtful criticism during the public comment period on proposed "Groundwater Protection Regulations", Title 47, Series 58. The regulations set forth a series of practices that must be followed by any person who owns or operates facilities or conducts activities that are subject to the provisions of the Groundwater Protection Act, West Virginia Code § 20-5M-1 et seq., and are regulated by the Office of Waste Management or Office of Water Resources.

To comply with federal and state public participation requirements the DEP issued on June 24, 1992 a notice announcing the beginning of a thirty day public comment period and a public hearing on the proposed rule. The notice was published in five newspapers, representative of various geographic areas across the state. Copies of the public notice were also sent to state agencies affected by the rule, the U.S. Environmental Protection Agency, the members of the Water Quality Advisory Committee, the WV Chamber of Commerce and other interested parties.

24 people attended the public hearing that was held July 28, at 7:00 p.m. in the Air Pollution Control Building, in Charleston, West Virginia.

In addition to 2 oral comments, the DEP received 13 written statements by July 28, the date on which the official record was closed. All public comments were reviewed in developing the final draft regulations.

The following is this agency's response to recommendations and concerns raised in oral and written comments. All Section references are to the proposed rule, the amended rule has undergone renumbering.

Due to comments received and as a result of the recent formation of the Division of Environmental Protection, the redrafting of the proposed rule reflects an effort to achieve consistency between a similar rule which is being proposed by the Office of Mining and Reclamation (OMR). Where possible definitions and requirements in this rule and OMRs were made similar to avoid possible confusion that may have resulted from conflicting requirements within the same agencies' rules.

Furthermore, comments received indicated that the rule in its original form was unnecessarily repetitive and complicated. Many commentators argued that the separate Sections for industrial facilities, electric power generating facilities, and unregulated facilities were mostly redundant and may have led to confusion over which Section of the proposed rule applied to a particular facility. The Division responded by enlarging the definition of an industrial facility to include the electric power generating facilities, and made provisions for any of the requirements of this rule to be applicable to unregulated facilities. This resulted in the reduction of the size of the rule by approximately two-thirds, without substantial alteration of the rule's intent.

I. GENERAL COMMENTS

One commentator offered its own version of the proposed rule. The Division of Environmental Protection appreciates the effort involved in this drafting, but considers the Division's revised draft of the proposed regulation to be a more comprehensive regulation. The Division's proposed regulation also more closely acknowledges the efforts of the Groundwater Workgroups, which were created as a recommendation of the Governor's Groundwater Task Force. The Workgroup's missions were to reach a compromise on issues of concern.

One commentator recommended that the Division of Environmental Protection (DEP) postpone filing of the proposed rules until such time that the groundwater in the state is classified based upon use. The same commentator resuggested this issue in several of its comments. Furthermore the commentator stated that the Division should only make protection practices applicable in areas of the state which have been identified as a "significant, usable resource and is likely to be degraded". The Division responds by stating that this particular comment is beyond the scope of the Division's authority. The Groundwater Protection Act states that groundwater regulatory agencies shall take such action as may be necessary to maintain groundwater at existing quality. The Act makes no provisions for classifying the states groundwater according to use, and therefore the Division has no mandate to do such a classification. Furthermore, since the intent of the Act was to protect all groundwater, the Division sees no current reason for varying levels of protection. The Act does allow for relief from groundwater standards. A deviation or variance may be obtained if a person can demonstrate that there exists sound reasons for allowing groundwater quality to be degraded.

Two commentors stated that the proposed rule should not apply to operations that are regulated by the Division of Environmental Protection's Office of Oil and Gas, or Office of Mining and Reclamation.. The Division shares this belief and offers that it was not the intent of this rule to apply to oil and gas or mining facilities or activities. The conflict arose with the creation of the Division of Environmental Protection. Section 1.1 of the proposed rule has been modified in such a way as to make the rule only applicable to those facilities or activities regulated by the Division of Environmental Protection's Office of Water Resources or Waste Management. The same commentor recommended the definition of industrial establishment be changed so as to exclude oil and gas activities. The Division maintains that the above change eliminates the concern and therefore will not change the definition of industrial establishment per this comment.

Two comentors brought to our attention that some facilities may be both an electric power generator and an industrial establishment, which presents an interpretational question as to which Section of the rule applies. Furthermore, one commentor added that hydroelectric generating facilities generally pose little if any threat to groundwater due to their size and nature. The Division appreciates this type of constructive review and believes that the changes made to the rule to combine the electric power section with the industrial establishment section has eliminated any applicability questions. With regards to excluding hydroelectric power generating facilities the division maintains that although the threat is limited, regulation is still required. In the event regulation serves no purpose in protecting groundwater, the director has been given authority to waive certain requirements found in the rule.

One commentor questions the meaning (intent) of Section 8. The Divisions redrafting of the proposed rule has eliminated Section 8 as written and thus eliminates any applicability concerns.

One commentor states that detailed facility design is not necessarily needed as companies will build safe facilities knowing that they could be fined under the act for groundwater contamination. Minimum design standards set forth baseline protection measures which the Division believes necessary for compliance with the Act. In the absence of minimum design standards, enforcement of the Act would predominantly be restricted to groundwater standard violations. This would circumvent the Act's intent, which is to prevent groundwater contamination before it occurs.

One commentor stated that the requirements for secondary containment, leak detection, etc. should allow for more

flexibility. Furthermore, the commentor stated that these requirements should only apply to "facilities or structures that pose a potential adverse impact to the quality of the groundwater". The Division has taken these comments along with others, which reflected similar concerns, into its redrafting of the proposed rule. Specifically in the Section for industrial establishments, the requested flexibility has been allowed for by placing more emphasis on the Groundwater Protection Plan (GPP), and less emphasis on specific regulatory requirements which, due to their broad coverage, may have been inappropriate.

One commentor stated that Sections 5 and 6 should have language similar to Section 9.2 (which expresses the intent of the Act with regards to contamination at existing facilities or activities). The Division concurs with this commentor as the proposed rule did not specifically address what measures should be taken by an existing facility or activity if contamination is found. The following suggested language has been adopted in to Section 5: "Where the evaluation of an existing facility or existing activity reveals that contamination is occurring, a schedule of compliance must be submitted by the facility or activity and approved by the Director whereby the facility or activity must retrofit or improve or discontinue existing systems, activities, or procedures to make them, to the satisfaction of the Director, protective of groundwater.

Several commentors stated that methods other than groundwater monitoring wells may be available to monitor groundwater quality. The Division agrees with this comment and has changed all citations for groundwater monitoring wells to groundwater monitoring stations.

One commentor stated that the proposed rules would "impede waste minimization initiatives by discouraging the regulated community from managing wastes onsite prior to being reused, recycled and/or recovered onsite". The Division responds by conveying that it is not the intent of the proposed rules to hinder any reuse, recycling etc. The proposed rule merely requires compliance with existing regulations governing reuse, recycling, etc., and makes provisions to allow for design standards and monitoring requirements to assure that the intent of the Act is met. The Division agrees that monitoring costs are expensive, but due to the nature of the resource, often the only way to determine if compliance with the Act is being achieved, is by requiring wells which must be monitored on a routine basis.

One commentor stated that there is need within the regulation to provide the Chief with adequate variance authority to exempt activities such as highway construction, quarries,

remedial actions, certain perched groundwater zones, Class I and V wells. The Division, and the Groundwater Coordinating Committee, recognize that a mechanism for obtaining a variance, and perhaps some specific variances as requested by the commentor, are necessary. The Division and the Committee believe the issues raised by the commentor are best addressed in a rule specifically for variances.

One commentor stated that, as this rule addresses a very broad range of activities, the Chief should have authority to permit alternative actions. The Division, in its redrafting of the rule, has built in more flexibility for the Director in many Sections. The Division believes that a minimum framework for Practices is essential in order to provide guidance to the regulated community. Otherwise the universe of options available would become overwhelming when the rule is practically applied.

II. FISCAL NOTE

One commentor requested that the DEP estimate the cost of compliance with this rule in the fiscal note. Another commentor stated that the Division should realize the economic impacts caused by the proposed rule which will be passed on to the consumers in the state. While a third commentor stated that the fiscal note does not reflect the cost to the state to review and enforce the regulation. DEP has no way of determining the cost of compliance with this rule as each facility would require differing costs to come into compliance with the Act. The Division acknowledges that the cost for compliance with the proposed rule may total in the millions of dollars, however the Act requires compliance with a nondegradation policy and we are merely implementing a state law. However, the Division believes the redrafting of the proposed rule has reduced the cost of compliance by eliminating a portion of the absolute requirements specified in the first draft of this rule. The redraft has introduced design flexibility that will permit facilities to utilize the best available, most cost effective, procedures to comply with the Act. Concerning the lack of a reflection of the estimated costs to industry the DEP believes the intent of the fiscal note is to deal with revenues (due to fees) both incoming and outgoing to the states revenue funds as a result of the rule, not to estimate the unestimateable costs that facilities/activities will incur to achieve compliance with the rule. Furthermore, the cost to enforce/implement this rule, was reflected in the fiscal note for Title 47 Series 55, Groundwater Protection Act Fee Schedule.

III. SPECIFIC COMMENTS

A. Response To Definitions Proposed By Commentors:

1. One commentator suggests that contamination be defined in the rule. DEP agrees that a definition of contamination would assist in interpretation of the rule and has added the following definition for contamination: Contamination means any man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of the groundwater, resulting from activities regulated under this rule in excess of existing groundwater quality, unless that site has been granted a deviation or variance from existing quality as provided for in the West Virginia Groundwater Protection Act, or is subject to an order, permit, or other regulatory action that requires restoration or maintenance of groundwater quality at a different concentration or level.

2. One commentator suggests borrowing the definition of liner from the hazardous waste regulations. DEP concurs with this suggestion and has modified the definition of liner from the hazardous waste regulations as follows: Liner means a continuous layer of natural or man-made materials, beneath or on the sides of an area intended for contaminant storage, which restricts the downward or lateral escape of contaminants.

Another commentator suggested that a definition of contaminant be added to the proposed rule and further requested that the definition of contaminant exclude specific constituents present in raw materials and low toxicity, nonhazardous wastes, including wastewaters. DEP answers this by agreeing that a definition of contaminant is needed. However, if the constituents mentioned in the previous sentence were to be excluded from the definition, the Division would have no way to protect the groundwater standards being promulgated by the State Water Resources Board. All groundwater is to be protected at existing quality therefore, we cannot allow contamination from raw materials, low toxicity nonhazardous wastes or wastewaters. The Division has added the following definition for contaminant: Contaminant means any material in a solid, liquid, or gaseous state that has the potential to cause contamination.

3. One commentator requested the term innocuous be defined, and offered that the definition should include all low toxicity, nonhazardous wastes, including wastewaters. The Division maintains rather than defining the term innocuous the determination of whether or not a waste should be left in place will be determined by the Director. The new language in Section 5.6.2. reads as follows ...stabilize, if necessary, unless determined innocuous by the Director.

4. One commentor stated that the words "substantive change" should be defined to only reflect changes in operations that can impact groundwater. The Division has deleted this term in the redrafted version.

5. One commentor suggested adding a new definition for potential to contaminate. The Division believes the definition offered by the commentor has merit, however it would be impossible for this definition to account each and every scenario that may be regulated by these rules. The Division has labored to create a workable definition for this term, but has found that any definition applicable to all the regulated activities would necessitate it being so vague, that it becomes essentially meaningless.

6. One commentor stated that a definition for groundwater is needed. The Division concurs and has adopted the definition of groundwater found in the Act.

B. Comment/Response To Existing Definitions:

2.1 One commentor stated that the definition of "Director" should reflect the recent reorganization of the state's environmental agencies. The appropriate changes have been made to this definition and wherever a similar problem was encountered throughout the rule.

2.2 and 2.7. Two commentors suggested changing the definition of new and existing facility to clarify the question of whether or not a facility under construction at time of rule promulgation is new or existing. DEP agrees that this needs improvement and has changed the definition of new and existing facilities to read as follows: New facility - any facility or activity which begins construction 180 days or more after the effective date of this regulation.

Existing facility - Any facility or activity which was in operation prior to the effective date of this regulation, or which does not meet the definition of a new facility.

2.3. Two Commentors stated that the proposed definition of "impoundment" could be interpreted to apply to farm ponds, flood control dams and even swimming pools, and suggests the addition of the word negatively before the words "impact groundwater". The Division has refrained from using the words "negatively impact groundwater" in all proposed Groundwater Protection Act Regulations. However, the Division agrees that the definition could be too broad and has modified the definition as follows: "...or any other liquid substance that could contaminate groundwater."

2.4. One commentor suggests the definition of "industrial establishment" be changed. The definition was borrowed from Chapter 20, Article 5A of the West Virginia Code. The Division has modified this definition to include facilities that generate electric power, and any facility/activity that could impact groundwater. The Division believes these changes both simplify the proposed rule and clarifies the rules intent.

Another commentor questions why are POTW's excluded. The Division responds by explaining that a Section has been reserved which is to detail what type of regulation POTW's will be required to follow.

2.5. One commentor questions the Division's authority to require mitigation which could include the replacement of a water source. DEP believes the necessary statutory authority to order the replacement of a groundwater source is provided for in Chapter 20, Article 5M, Sections 10 (f) and 13 (b).

2.6. One commentor believed that further definition of the term "naturally occurring substance" was warranted. Three commentors stated that naturally occurring substance definition is not needed. The Division has determined that as the use of the term naturally occurring substance is limited to only raw or processed coal, it would be more straightforward, and create less confusion, to eliminate usage of the term in the proposed rule. Another commentor requested that the definition of "naturally occurring substance" be expanded to include low toxicity, non hazardous wastes (e.g., slag). The Division maintains that the proposed addition to the definition would not keep within the intent of the Act as explained in Section III A. - Response To Definitions Proposed By Commentors.

2.9. One commentor states that "practice" is incorrectly defined. The Division concurs and has changed the definition of practice to read as follows: Practice means any action which is protective of groundwater.

Another commentor objects to the definition including policies, especially when one applies this definition to 3.1. The Division concurs with this objection, and has removed the word "policy" from the definition.

2.10. Two commentors stated that secondary containment should be to prevent releases to groundwater rather than the environment. DEP does not agree, an accidental release into the environment may contaminate groundwater. The acts intent is to prevent groundwater contamination. As currently proposed the definition eliminates the inability to take action if the release is confined to the unsaturated zone.

Technically the groundwater may not be contaminated until a storm event carries the contaminants below the water table.

2.11. One commentor requests that the definition of "small business" be eliminated and give the Director power to waive requirements on any facility. DEP concurs with the commentor and its redrafting of the proposed rule reflects the Commentors suggestion.

C. Comment/Response To Sections 3 through 15

Section 3 - Incorporation by Reference

One commentor opposes the Section as written due to interpretational problems. The intent of this Section was not to allow solid waste regulations to be used, for example, on a mine impoundment. The intent was to give the Division the ability to utilize groundwater civil administrative penalties when a rule, not specifically promulgated under Chapter 20, Article 5M, was violated and there was a problem/contamination involving groundwater. DEP believes that by adding the new Section entitled Conflicting Provisions the issue raised has been eliminated. (See Section 4 below)

Section 4 - Practices Authorized by the Act

One commentor suggested moving this Section of the rule into another Subsection in order to allow the Director more flexibility. Other commentors stated that in the event of a conflict the existing or most applicable rule should apply. The DEP maintains that the modification of a suggestion by another commentor better achieves our initial intent. DEP's has placed the following language in a new Section entitled "Conflicting Provisions" which reads as follows: "Recognizing that in certain cases, existing regulations impose requirements that are more or less restrictive than the requirements of this rule, in the event that this rule conflicts with another applicable rule, the Director shall determine which rule, or section(s) thereof, best complies with the intent of the Groundwater Protection Act., and require adherence to said rule, or section(s) thereof. The Director may, at his discretion, begin the formal regulatory process to remove the conflict between the regulations."

Section 5 - One commentor stated that the efforts of the Coal Workgroup are not acknowledged in this regulation. Division responds by stating that this regulation only applies to those facilities or activities regulated by the Offices of Waste

Management of Water Resources. A separate rule for facilities such as coal preparation plants, waste piles, etc. is being promulgated by the Office of Mining and Reclamation and should incorporate the Coal Workgroup's recommendations.

5.1 One commentor questions the rationale for exempting a facility based on its annual revenue. In certain cases the requirements imposed by this Rule could be either unreasonable or inappropriate for all types of facilities or activities. The Division in its redrafting of the proposed rule has eliminated the small business exclusion and substituted in its place language allowing the Director to waive requirements if they are not appropriate to the facility/activity in question.

The commentor also questions what requirements could a small business be exempted from and how is the exemption obtained. This comment is no longer valid due to the redrafting of the rule.

Section 5.2 - Outside Material Storage Areas

One commentor stated that industrial establishments should be allowed flexibility in the actions they take to prevent contamination from outside material storage areas, and specifically request that this issue be addressed in the groundwater protection plan rather than a Section in the rule. DEP maintains that the evaluation process is necessary and that flexibility is provided for in the plan. The term runoff and/or infiltration control system will be defined in the regulation and will reflect the flexibility suggested by the commentor. The definition is as follows: Runoff/Infiltration Control Systems means any system which is designed to prevent contamination of groundwater from any materials stored in an outside material storage area, by either prohibiting stormwater from contacting the material, or by intercepting and properly disposing of stormwater which has become contaminated due to contact with the material.

One commentor suggested changing the words "release contaminants to" to "contaminate". The Division agrees and has used the suggested language in Section 5.3.1. of the revised rule.

Another commentor stated that monitoring wells should not be required for outside material storage areas unless the agency can demonstrate "(1) there is an imminent threat of harm to human health and the environment outside of the facility property boundary; and (2) there are no existing groundwater monitoring wells onsite that can be used to provide samples representative of groundwater conditions within the facility property boundary." The Division contends that (1) above

could possibly allow for contamination both inside and outside of the property boundary. A regulatory agency has no way of knowing if compliance with the act is being achieved if it does not have suitable sampling sites at the facility. Providing suitable sampling sites has always been the facility/activities' responsibility. Furthermore the Act provides for no distinction in levels of protection inside or outside of a property boundary, and the burden of proof as to whether the resource has/is being impacted is on the operator, not the Division. The Division agrees with two above, facilities/ activities should be allowed to utilize existing monitoring points if they can be simultaneously used to monitor differing activities. The Division believes that sufficient flexibility is allowed in the following existing language to allow for the use of existing monitoring points. Placement of groundwater monitoring stations may be necessary to perform this evaluation.

One commentor questions why monitoring wells are necessary to determine the potential of an area to contaminate groundwater. The Division contends that monitoring stations are necessary in certain cases to determine necessary geological information, such as: depth to groundwater, flow direction, aquifer composition, aquifer quality, etc. However, the Division concurs with the commentor the wording is potentially ambiguous, and has made the following modification to Section 5.3.1: "placement of groundwater monitoring stations may be necessary to determine if contamination has occurred or is occurring.

One commentor suggests the addition of a separate Section in the rule to outline when installation of monitoring wells is required. For clarity the Division has added a Section entitled Monitoring which outlines when monitoring may be required in the event the rule does not specify monitoring.

One commentor wants definitions for raw materials. The Division does not believe it is possible to list all things that could be considered as raw materials. The Division believes that this term, taken in the context of this Section, provides the necessary flexibility to protect the resource without the danger of omission and possible threat to the resource that a standardized list would inherently have.

5.2.2. One commentor suggests that specifications should be determined and included in the rule. The Division contends that specifying technological requirements will stifle innovative solutions to pollution prevention and will unfairly prohibit the application of new technological developments.

Section 5.3 - Loading and Unloading

One commentor recommends a change in heading to reflect that the Section should only apply to areas that are outside or lack secondary containment. Another commentor stated that these provisions should apply only to liquids. DEP has changed the language in the Section to read as follows: "Loading and unloading stations including but not limited to drums trucks and railcars that do not have secondary containment shall have spill prevention control facilities and procedures..." With respect to the comment that this Section should only apply to liquids the Division is wary that an outright exclusion for solids could lead to contamination. On the surface, the solid exclusion appears logical, however when one considers that many chemicals and pesticides are transported/loaded/unloaded in the solid state it becomes apparent that an exclusion for solids is not protective of the resource.

5.3.2. One commentor questions whether or not it is the intent to have secondary containment built into the container, or is detached secondary containment sufficient. The Division is only concerned that secondary containment is available, and is not necessarily concerned about whether it is attached or detached. DEP has changed "shall be designed to" to "shall be installed in such a manner so as to".

Another commentor suggests that specifications for bulk containers and product distribution facilities should be stated in the rule. The Division contends that specifying technological requirements will stifle innovative solutions to pollution prevention and will unjustly prohibit the application of new technological developments.

Section 5.4 - Wastewater Impoundments

One commentor offered a the following rewording of Section 5.4.1.: delete "release contaminants to" and replace with "contaminate". The Division concurs with the proposed rewording, and has made the appropriate change.

5.4.2. One commentor offered modifications to the Subsection, which would not always require a liner. The Division maintains that if the definitions for contaminants and impoundment are met then the impoundment should be lined, and that differing types of liners are permitted. Therefore we will not change the Subsection as written.

One commentor states that liners and monitoring may not be necessary for impoundments that contain "barely-contaminated stormwater or makeup cooling water" DEP maintains that if the definition for contamination is met the impoundment should be lined for new facilities and that if make up cooling water is of such quality that existing groundwater quality would not be

altered as a result of pond leakage then no liner would be required.

Another commentor requested that monitoring wells not be required unless the agency can demonstrate that there is a threat to the environment outside the property boundary and there are no wells which can be used to provide groundwater data within the property boundary.

With regards to requirements for monitoring wells the Division offers the same response provided in Section 5.2.

Another commentor suggests that methods other than monitoring wells should be allowed to establish groundwater quality at the Division's discretion. The Division concurs. If a more cost effective method can be used to provide reliable data and samples then that technology should be permitted. However, if deemed necessary, some permanent method must be in place to assure compliance. Other preexisting wells may be utilized (see comment - Section 5.2) if they are capable of providing adequate samples. The Division will change the wording "Groundwater monitoring wells" in the Subsection to "Groundwater monitoring stations".

Two commentors questioned who will determine if there is potential for contamination and how can contamination be detected if there are no monitoring wells. The potential for contamination will be identified most likely in one of two ways. A facility or activity should outline the need for a liner in their groundwater protection plan, however if this does not occur the regulatory agency still has the ability to analyze what will be stored in the impoundment and make the determination if the impoundment should be lined. With regards to monitoring, in most cases wells will be required, but in certain instances existing wells may be available, springs may be in close proximity, or the liner could be constructed in layers which would allow for a leak detection system to be placed between the liners.

Section 5.5 - Best Management Practices (BMP) Plans

One commentor states that the BMP Subsection is a duplicate of the Subsection which requires groundwater protection plans. Another commentor suggested the Section be revised to be consistent with the BMP Plan requirements of the proposed rule. One commentor asks what is the schedule for the BMP and will they be reviewed and approved. The Division's reorganization of the Sections of the rule pertaining to BMP's and GPP's has eliminated this concern. The two requirements were combined, and therefore have the same deadlines. With regards to the question of review and approval, the regulation requires the plans to be available one year after the

effective date. However, review of the plan will not occur until the facility's or activity's permit is scheduled for reissuance or at the Director's request. Approval or denial of the plan will be simultaneous with permit issuance.

5.5.1. Two commentors stated that BMP plans should not be required to address surface water unless it was the Division's intent to regulate non-point source groundwater discharges to surface water. The Division has removed the surface water reference from the regulation as it may be beyond the scope of the proposed regulation.

Another comment received stated that BMP plans should not be required to address activities that are conducted inside buildings. The Division agrees, but only to a limited extent, Activities conducted indoors may affect groundwater quality if, for instance, the building has a dirt floor. The entire GPP subsection has been rewritten and restructured (See Section 5.11. et seq. of the new draft)

One commentor states there needs to be a catch-all statement for areas not specified. The Division replies that this statement can be found in Section 5.11.1.

5.5.2. One commentor stated that the word "should" is too vague. DEP concurs with this comment and has modified the new Subsection 5.11.6. to remove the potential ambiguity.

One commentor states that the "etc." as used in Subsection 5.5.2. is too vague. DEP agrees with this comment and has removed the word "etc." Furthermore, the Division has expanded the Section to include the allowance of use of certain types of wastes if allowed for in existing regulations.

5.5.3. One commentor stated that the use of the word should is too vague. DEP concurs and has substituted the word "shall" as suggested.

5.5.3.a. One commentor stated that the job procedure training (in protecting groundwater) should be subject to review and approval. The Division agrees with the concept, but does not, at this time, have the necessary personnel to review the training material and procedures being given to employees. Until such time that the Division can outline what material should be given in a training session, we will be forced to rely on the facilities or activities judgement as to what type of training is offered. At a later date the Division would like to be in a position to either provide training or suitable training material to facilities and activities.

One commentator proposed changing from quarterly to yearly the frequency of inspecting the elements of the sites groundwater protection program. The Division maintains that quarterly inspections are not unreasonable, and may assist in avoiding a rather costly cleanup if a problem is not discovered for up to a year.

5.5.3.c. Two commentators stated that "inspected and maintained regularly" should be defined, and suggested that it be not less than quarterly. The Division maintains that the quarterly inspections outlined in 5.11.8., the sites groundwater protection plan, will include the integrity checks on the equipment or structures installed to provide groundwater protection.

5.5.3.e. One commentator stated that this Subsection should be placed in its own Section. The Division concurs and has placed this language in a new Subsection 5.2.

Section 5.6 - Groundwater Protection Plans

One commentator believes that Groundwater Protection Plans should be the heart of the rule. The commentator encourages the Division to identify and close gaps in coverage versus placing duplicative burdens on the regulated community. Specifically the commentator requests combining the Sections dealing with BMP's and Groundwater Protection Plans. After a review of the rule DEP has determined that the rule would better achieve the desired results if the Section pertaining to BMP's were to be included in Practices, and therefore the Division has combined the BMP and GPP Sections.

Another commentator suggests that the groundwater protection plans be listed as part of a facilities NPDES permit and triggered at time of permit renewal. DEP intends to follow the commentator's suggestion for those facilities who are required to have an NPDES permit. Furthermore the commentator stated that this should be done after the Division has promulgated groundwater uses and standards. The Division cannot address this comment as the Act did not give the authority to, or recommend that the Division classify groundwater based upon use, and the authority to promulgate Groundwater Standards was given to the State Water Resources Board.

5.6 One commentator stated that the "shall" should be substituted for the word "should". The Division concurs with this commentator and has made the appropriate change.

One commentator states that the GPP's appear to only require existing data and that limited guidance is provided. The

Division agrees that this Section lacks specificity in both areas as addressed by the commentor. However, specificity will occur when a facility or activity requests or renews a permit. Detailed review of all pertinent information including the GPP must occur before permit issuance. If there is concern that additional information is needed to assure protection of the resource, the permittee will be notified by the permitting authority.

One commentor questioned whether the agency will detail a list of indicator chemicals that have the potential to reach groundwater. In addition, the commentor questioned whether contaminants that only affect the aesthetic properties of the groundwater are to be considered. The Division contends that Chapter 20, Article 5M sets forth a nondegradation requirement, therefore, any potential source of contamination, whether aesthetic or not, must be addressed in the GPP.

5.6.1. One commentor stated that the reference to soil should be removed as it is beyond the scope of these regulations. The Division responds by stating the soil reference allows for an inventory of areas/activities which could contaminate soils and thus have the potential to also contaminate groundwater. In absence of the inventory, detection of soil contamination, which may lead to groundwater contamination may be overlooked, thus resulting in contamination of the groundwater.

Another commentor requested the term "operations" be defined. The Division believes that all operations that have the potential to impact groundwater quality must be addressed in the GPP. It is not limited to those specific operations detailed in the regulation. If the process/manufacturing procedure is such that a failure or error could lead to the contamination of groundwater, then it should be addressed in the plan. A rigid definition of "operations", considering the vast variability of the facilities and activities addressed by this regulation, has the potential to create weaknesses in regulatory coverage, therefore the Division refrains from defining the term.

5.6.3. One commentor suggested that 5.6.3. be deleted, as it assumes one can foresee what new operations will need to be protective of groundwater. The Division contends that this Section provides for a step in the planning process, for any new operation, that will insure proper groundwater protection, in design, construction and operation. This Subsection merely requires progressive groundwater protection planning prior to construction, which the Division believes necessary.

5.6.5. One commentor stated that any information gathered should be provided in a format that will be acceptable by DEP's database. Currently the data management system required

by the Act is not operational, and therefore the format for data transfer cannot be specified in regulation. However the Division agrees with the concept and has added the following Subsection: 5.9.6. Data Management - The director may at his discretion require submittal of any or all groundwater monitoring data collected in association with a regulated activity, and may further specify an electronic format in which the data is to be submitted.

One commentor stated it is almost impossible to be sure that all available information has been addressed. The Division agrees with the commentor's thought, but believes this is the best wording possible to express the Division's intent.

Section 5.7 - Implementation Schedule

One commentor offered new language for Subsection 5.7. which pertains to implementation of the GPP. The Division utilized the suggested language, with minor modification, in its reworking of this Section. Section 5.12. in the new draft better details when the GPP's are to be completed, and allows for a more objective determination to be made as to whether or not compliance with the Section is being achieved.

One commentor recommended that GPP's for new facilities be addressed in Subsection 8.4. The Divisions combining of requirements for all facilities/activities into one Section of the rule has eliminated the need to address GPP's for new facilities in a separate Section.

One commentor requests that the Division clarify that the design standards in the proposed rule are meant to be part of an implementation schedule administered through the groundwater certification process. Four commentors stated that there should be requirements for review and approval of the plans. DEP concurs with both proposals and has added the following language to the rule:

5.12.5. Effect of Groundwater Certification for facilities or activities with permits.

5.12.5.a. GPP's for those facilities or activities who are required to obtain a permit will be administered through the appropriate permitting program. Groundwater Certification will be incorporated into the issuance of the permit, only if all pertinent requirements of the act and rules promulgated thereunder have been met. If a compliance schedule is determined necessary to meet the requirements of the Act the schedule shall be addressed in the facility/activities permit. (A definition of permit will be added to the rule)

5.7.6. Groundwater Certification for facilities or activities not required to obtain a permit - reserved.

Section 5.8 - Impoundment Closure Requirements

One commentor suggests moving the closure Subsection into the Section pertaining to design standards for impoundments.

5.8.1. Also three commentors stated that the proposed rule does not allow for beneficial use of sludges and suggests adding the words "or reused" into the Section. A restructuring of the proposed rule has moved the impoundment closure Section into the Practices Section of the rule. The DEP agrees that in some situations a beneficial reuse of the sludge could be allowed for. Therefore the DEP has changed the last sentence of 5.6.1. to read as follows: "All solids and sludges shall be properly disposed by in place closure if approved by the director, or removed to a landfill, or incinerated unless a beneficial reuse is allowed in existing regulations.

5.8.2. Three commentors wonder who will determine what is innocuous, and by what methods. First, as explained in item 3 of III. SPECIFIC COMMENTS, the Director will determine what is innocuous. The determination as to what constitutes innocuous must be made based upon site specific conditions. Factors such as geology, soil type, stored material compounds, pH, etc must be considered before a determination could be made. Allowing this determination to be made by the Director provides sufficient flexibility to effectively regulate the wide variety of impoundments.

5.8.3. One commentor requested that the Section be changed to achieve consistency with 47-58-6.3.4. The Division's redrafting of the rule has eliminated the distinction between industrial facilities and electric power facilities, thereby achieving the commentor's desired consistency.

Another commentor suggested adding the words "covered, or" to allow the flexibility to use materials other than traditional caps when the situation is appropriate. Another commentor wanted the type of cap specified. The Division believes that through the adoption of language giving the Director discretion in requiring a cap and specifying its construction the flexibility requested by the first commentor and the definition requested by the second has been addressed.

Another commentor questions what will occur if impoundments are not filled in and suggested that the word "should" should be replaced by "must". The Division responds that the authority granted under 20-5M provides for a wide variety of responses, including

administrative orders, administrative penalties, civil actions and criminal actions. The Division will replace "should" with "must" to avoid any possible confusion.

5.8.4. One commentor stated that statistical methods should be used to determine if contamination has occurred and that a maximum of four sampling events over the period of a year is sufficient to determine if contamination has occurred over a year. The first issue raised will be addressed at a later date when the reserved Section 9.3. is promulgated. With respect to only four sampling events per year the Division believes that it may be necessary, based on sampling problems, or sample loss, or inconclusive results to require more than four sampling events per year, and therefore will not limit sampling to four events per year.

5.8.4. One commentor desired clarification of when "adequate remedial action" was achieved. The Division will utilize standards promulgated by the Water Resources Board for maximum contaminant levels whenever possible. In cases where the background level is higher than the MCL, the background level will be the cut-off point for remediation. The Division understands that in some cases an asymptotic limit will be reached before the contamination can be brought to, or below, the target level, and in such situations would not require further remediation with that technology. The site specific requirements will be detailed in the order for remedial action issued by the permitting authority.

One commentor questioned how the regulations apply to existing impoundments. The Division states this will be addressed in the GPP prepared by the facility/activity, as the GPP is to address all potential sources of groundwater contamination.

5.8.5. Commentors stated that the words "current problem" and "impermeable" are too vague. DEP agrees that "current problem" is a bit vague and has changed the Section to read as follows: "5.6.4. Prior to closing an impoundment which has been found to be contaminating groundwater, a plan which includes, but is not limited to, details of capping, filling, grading, and runoff control must be submitted to the Director for approval. Additionally comment was received recommending that innocuous be defined to include all low toxicity, nonhazardous wastes, including wastewaters. The Division addresses this comment in Section 1.1 of the responsiveness summary.

Section 5.9 - Site Selection Criteria

Five commentors recommended a rewording change to eliminate the prohibition of facility siting in areas of shallow

groundwater or karst. Two commentors also stated that siting should also include factors such as highways and dwellings, and other factors as found in the states Solid Waste Management Regulations. DEP concurs and has made the following change: "Facilities or activities, must determine if they are planning to locate or expand into areas of karst, wetlands, fault(s), subsidence, or delineated wellhead protection areas, as determined by the bureau of public health. If areas of karst, wetlands, fault(s), subsidence, delineated wellhead protection areas, or other areas determined by the Director to be vulnerable based on geologic or hydrogeologic information are determined to exist then the facility or activity design must address the issues arising from locating in the area(s) of a potentially more vulnerable groundwater resource." The Division's intent with this Section is based on protecting vulnerable groundwater. The presence of highways, or dwellings does not necessarily constitute a more vulnerable resource, and therefore was not included in the paragraph revision.

One commentor suggests that a definition for "shallow groundwater" is needed. The Division has eliminated the use of the term "shallow groundwater" and therefore a definition is not required.

One commentor suggested that the Division should construct a map which depicts areas of vulnerable groundwater so that informed decisions by the agency and individual can be made. The Division appreciates this suggestion, and would like to complete such a project when our Geographic Information System becomes operational.

Section 5.10 - Pipelines and Pumps

Note: Sections 5.10.1, 5.10.3, and 5.10.4. were moved into the general practices Section due to rule reorganization.

5.10.1. One commentor requests that pipelines such as those conveying natural gas, wastewater, or contaminated stormwater should be given exemptions from the preferentially installed above ground statement. DEP maintains that through the careful selection and use of the word "preferentially", certain pipelines may go below ground if a justification can be presented which would support the need. Furthermore, those pipelines conveying wastewater in many cases should be above ground, depending upon the type of wastewater conveyed.

5.10.2 Extensive comment was received detailing the numerous shortcomings of this Section as written. Issues raised include: (1) does this also apply to existing pipelines, or pipelines that are being repaired; (2) secondary containment

and leak detection is unduly burdensome; (3) what constitutes leak detection and secondary containment; (4) what types of pipeline contents are subject to the regulations; (5) should corrosion protection be mandated. The Division agrees with the commentors in that this Section raises many difficult questions. Comment was received suggesting the Division may be better able to address pipeline regulation by allowing the facilities/activities to address these questions in their GPP. The Division has placed increased emphasis on the GPP and has mostly eliminated the inflexible protection requirements in favor of the development of site specific solutions in the GPP.

5.10.3. One commentor requested making use of the term "potential to contaminate" to make the Section more consistent with the Act. The Division concurs with this suggestion and the modified Section reads as follows: "Ditches shall not be installed as primary conveyances for materials which have the potential to contaminate groundwater, unless provided with appropriate liners."

Another commentor stated that unlined ditches should allow for the conveyance of inert and innocuous wastewater(s). The Division maintains that the Section is worded such that if the definition for potential to contaminate is met, liners should be, and therefore are, required.

5.10.4 One commentor requests that the Section concerning pumps and ancillary equipment should recognize that some cooling water pumps leak around the seals by design. DEP acknowledges this issue, but argues that the spilled material should at a minimum be contained. The new Section 5.7.3. addresses this concern.

Section 5.11 - Sumps and Tanks

Note: Sections 5.11.2, 5.11.3, and 5.11.4. were moved into the general practices Section due to rule reorganization.

5.11.1 Extensive comment was received detailing the numerous shortcomings of this Section as written. Issues raised include: (1) what constitutes leak detection for tanks above ground; (2) secondary containment and leak detection is unduly burdensome; (3) are small tanks required to conform to these regulations, and if not, what is the cutoff point; (4) what types of tank contents are subject to the regulations; (5) a manual inspection program should be allowed. The Division agrees with the commentors in that this Section raises many difficult questions. Comment was received suggesting the Division may be better able to address sump and

tank regulation by allowing the facilities/activities to address these questions within their GPP. The Division's new requirements place increased responsibility on the facility to determine appropriate methods for ensuring containment is achieved. The Division may require another type of containment if it believes groundwater protection will not be achieved.

One commentor stated that the Section duplicates existing regulations (i.e. underground storage tank regulations), and that requiring both secondary containment and a leak detection system is unduly burdensome.

DEP agrees that for tanks regulated under the UST program those rules should apply, and the rule has been changed accordingly. For those tanks not covered under the UST program the Division believes that sumps and tanks should have adequate safeguards to prevent groundwater contamination. These safeguards may be in the form of secondary containment, leak detection systems, or any acceptable alternative method.

5.11.2. One commentor requested that consideration for space limitations be included as just cause for sumps and tanks to be installed underground. And another commentor felt that approval by the chief should be included. A third commentor questions who decides what constitutes an overriding safety, legal, security, or fire protection issue. The Director would have authority to allow tanks to go above ground due to space limitations, but only in rare instances via the new Section 47-58-12. Generally existing regulations will dictate whether or not a tank should go underground, but in their absence this decision would be made by the Director.

5.11.3 One commentor stated that quarterly inspection of sumps is excessive and should not be required. DEP maintains that quarterly inspection of sumps and tanks is necessary as it would prevent a containment failure from going undetected for any appreciable length of time.

Section 5.12 - Diking and Spill Containment

Note: Subsection 5.12.3 was moved into the general practices Section due to rule reorganization.

Two commentors stated that secondary containment is not needed for all tanks based upon tank size or contents, and one of these commentors suggested that secondary containment should be required only after an analysis of the risk of tank failure is completed. Furthermore two commentors stated that since impermeability may be technically impossible to achieve, that

containment should be only be required to withstand a 72 hour containment period.

DEP begins by stating that regardless of tank size certain releases have the potential to impact groundwater and that threat should be eliminated through the use of appropriate spill prevention/detection/containment controls. The request to only provide prevention/detection/containment controls after an analysis of the risk of tank failure also is flawed. An analysis today can indicate the tank is structurally sound, only to find a failure at a later date. If a tank contains substances that have the potential to impact groundwater quality it should have appropriate safeguards installed. The Division believes that by allowing facilities/activities to address these concerns on a case by case basis in their GPP, as stated in the new Subsection 5.11.2.g. of this revised rule, groundwater protection will be successfully achieved. Therefore, the Division has deleted Subsections 5.12.1 and 5.12.2.

5.12.2. One commentor suggested that the language "appropriate to" should be changed to "commensurate with". Deletion of this Subsection for reasons stated in the response to 5.12.1, eliminates the need for a response to this comment.

5.12.3. One commentor stated that this Subsection is too vague to enforce. The Division believes that if a release from a drum occurs and the spill is not contained, enforcement will be achievable, as they will have violated this Subsection which clearly states that spills must be contained. Also the Division has added the words "containing materials that have the potential to contaminate groundwater" after the word "drums" so that containment measures are not required for those drums whose contents do not pose a threat to groundwater quality.

Section 6 - Facilities That Generate Electric Power

Three commentors stated that the requirements for electric power generators should be the same as those for industrial establishments and this Section should only address those issues that differ.

The Division's redrafting of the proposed rule has eliminated the separate section for facilities that generate electric power. Only minor differences existed between the two sections in the original rule. The redraft has broadened the industrial facility section to take into account those minor differences but still allows for reasonable regulation of electric power facilities.

One commentor provided similar comment to Section 6 as was offered for Section 5. As these Sections are very similar and

no additional issues were raised the Division offers the responses provided to Section 5 comments.

6.1.1.a. One commentor questions why monitoring wells are necessary to determine the potential of an area to contaminate groundwater. Although this Section was eliminated a similar comment was addressed, in Section 5.2 Outside Material Storage Areas, in this document.

6.1.1.b. One commentor suggested changing the word "prevent" to "minimized to the extent technically and economically practicable" The Division believes that the use of the word prevent expresses the intent of the Act more closely. Protecting the resource at existing quality is the underlying purpose of the Act, and stating in regulation that new areas shall not impact groundwater quality is not unreasonable. Minimized to the extent technically and economically practicable allows for the argument to be made that facilities or activities could be constructed without the use of best available technology on the basis of cost alone. If a facility cannot be constructed in such a manner so as to achieve compliance with the Act then a deviation or variance must be obtained. Although this Section has been eliminated, the comments and response equally apply to Section 5.3.2. of the redrafted rule.

6.1.1.b. One commentor stated that runoff and/or infiltration control systems should be in the minimum design Section as opposed to being done "if necessary". Due to the wide variety, composition and location of outside material storage areas, it may not be necessary to require control systems on each and every outside material storage area, thus it will not be included in the "minimum design" Section. This comment and response now applies to Section 5.3.1. of the redrafted rule.

6.1.2.a One commentor questions whether or not this Subsection applies to coal combustion by-product impoundments. This Subsection applies to any wastewater impoundment, including those which contain coal combustion by product impoundments . This comment and response now applies to Section 5.5.

The commentor also questions which rule applies, 47 CSR 58 or 47 CSR 38. The Division has addressed this issue in the response found in D. Section 4, the Director shall determine which rule or Sections thereof best fulfills the intent of the Act. The intent of 47 CSR 58 6.1.2.a. was to reevaluate existing impoundments, to determine if the potential for contamination exists, not to override the requirements of 47 CSR 38. If potential is found to exist the design deficiencies must be addressed.

One commentor stated that to achieve consistency either the monitoring reference in this Section should be deleted or added to Subsection 5.2.2. The Division's combining of Sections 5 and 6 has resulted in the consistency desired by the commentor.

6.1.2.b One commentor requested the Division remove the words "if necessary" thereby requiring all impoundments to be lined. The Division believes that other methods of preventing contamination of groundwater by impoundments may be available or advisable for certain contaminants. Therefore an inflexible requirement for lining impoundments could be counter productive both technologically and economically. The Division believes that the section as revised offers the flexibility needed to regulate the vast number of impoundments in the state without being prohibitively burdensome. In addition the definition of impoundment has been changed to eliminate those impoundments that contain substances that do not have the potential to impact groundwater. The redraft of this rule has eliminated this section, however the comment and response is applicable to Section 5.5.2.

6.2.1. One commentor requested that "should" should be replaced by "shall". This comment and response is now applicable to 5.11 of the redrafted rule. The Division has made the appropriate change, as it is the intent of the Act for all facilities or activities to have a Groundwater Protection Plan.

6.2.1.a. One commentor stated that "impact negatively" should be changed to "contaminate" or "pollute". This section has been deleted from the redrafted rule, but the comment and response still applies to revised Section 5.11.1. The Division recognizes the distinction made by the commentor, and has adopted the uses of the word contaminate. The revised rule reads as follows: "5.11.1 An inventory of all operations that may reasonably be expected to contaminate the groundwater resources with an indication of the potential for soil and groundwater contamination from those operations."

6.2.1.e. One commentor stated that any information gathered should be provided in a format that will be acceptable by DEP's database. Currently the data management system required by the Act is not operational, and therefore the format for data transfer cannot be specified in the current regulation. Although this particular section was deleted, the Division agrees with the concept and has added language to this effect in section 5.9.6 of the redrafted rule.

One commentor requested that electric power facilities be subject to the same BMP requirements as industrial facilities, specifically 5.5.3.a. through 5.5.3.e. The Division agrees

with this concept and via its combining of Sections 5 and 6 has achieved the commentor's desired consistency.

6.2.3. (a) - (d) One commentor believes that after rule promulgation a 90 day lead time period should be provided for. This would allow facilities or activities necessary time to create a scope of work, issue contracts, etc. Two other commentors (baker & degen) wanted clarification as to who will review/approve the plans, and when are they due. The Division has redrafted the rule to allow one year after the effective date of the regulations before the plan is to be completed and implemented. Section 5.12. of the redrafted rule now specifies that the plans are to be implemented within one year and furthermore will be reviewed at the permit issuance/renewal process, or at any other time the director deems necessary.

6.3.2. One commentor stated that the "should " should be changed to "shall". The Division concurs and has made the requested change in Section 5.6.1. of the redrafted rule..

6.3.3 Two commentors wonder who will determine what is innocuous, and by what methods. First as explained in specific comments #3 the Director will determine what is innocuous. The Determination as to what constitutes innocuous must be made based upon site specific conditions. Factors such as geology, soil type, stored material compounds, pH, etc must be considered before a determination could be made. Allowing this determination to be made by the Director provides sufficient flexibility to effectively regulate the wide variety of impoundments. This comment and response applies to Section 5.6.2. in the redrafted rule.

6.3.4. One commentor stated that the language from 5.8.3. should be used. The Division believes that, due to the wide variety and composition of impoundments, the Director should have some discretion in determining how impoundments are closed. The redrafted Section 5.6. reflects this flexibility, but also requires a plan to be submitted to, and approved by, the Director.

6.3.6. One commentor pointed out that "impermeable" may be impossible to achieve. The Division concurs that, as written, strict compliance is difficult/impossible to achieve. Therefore a change was made to require a plan for closure which includes proposed cap design be submitted to, and approved by, the director. This comment and response now applies to Section 5.6.4.

6.4 One commentor requested that the term "shallow" groundwater zones be defined, while another commentor wanted prohibitions against siting in karst areas and rules for

siting near wells, mines, etc. The Division has eliminated this Section but addresses the same comment in it's response to Section 5.9.

Section 6.5 - Pipelines

6.5.2. Extensive comment was received detailing the numerous shortcomings of this Section as written. Issues raised include: (1) does this also apply to existing pipelines, or pipelines that are being repaired; (2) secondary containment and leak detection is unduly burdensome; (3) what types of pipeline contents are subject to the regulations. The Division has eliminated this section but offers it's response in Section 5.10 of the responsiveness summary.

Section 6.6 - Sumps and Tanks

6.6.1. Extensive comment was received detailing the numerous shortcomings of this Section as written. Issues raised include: (1) secondary containment and leak detection is unduly burdensome; (2) are small tanks required to conform to these regulations, and if not, what is the cutoff point; (3) what types of tank contents are subject to the regulations; (4) True impermeability cannot be achieved for an indefinite period; (5) leak detection should be required on remote sites; (6) an inspection timetable for sumps is needed.

The Division agrees with the commentors in that this Section raises many difficult questions. Comment was received suggesting the Division may be better able to address sumps and tanks regulation by allowing the facilities/activities to address these questions in their GPP. Therefore the Division modified the rule by eliminating section 6.6 and the Division offers the same response as is provided in the response to Section 5.10.

6.6.2. One commentor suggests this Section be deleted as compliance with the Underground Storage Tank regulations is already required, while another commentor wanted it stated that all UST tanks meet all UST requirements applicable to groundwater protection. DEP concurs with the former commentor, that this Section is not required and has deleted it. Compliance with the Underground Storage Tank Act is mandated within the Act and restating this is unnecessary.

6.7.1. One commentor suggested that this Section which requires electric power generators to comply with the remediation requirements be deleted as no other facilities are specifically referenced. DEP concurs with this suggestion and

has removed 6.7.1. from the proposed regulation. However, the Division wishes to emphasize that Section 9 of the redrafted proposed rule still applies.

Sections 8, 9 and 10 - Criteria For Various Facilities

One commentor proposes changing the definition of industrial establishment to include those facilities who could be covered under Sections 8, 9, and 10. The Division concurs with the commentor, and has combined Sections 5, 6, 8, 9, and 10. Furthermore, the division modified the definition of industrial establishment to allow any facility to possibly meet the definition.

One commentor believes that before rules concerning new facilities/activities are promulgated, groundwater should first be classified based upon use, and that practices should only be applicable in areas identified as having usable groundwater. Division response in General Comments Section applies.

One commentor suggests that the decision to require groundwater monitoring wells or conduct remediation should be done with risk assessment techniques on a case by case basis. The Division responds that the practices in this Section did not mandate remediation. Furthermore, the Division maintains that the phrase in Subsection 5.9.2. of the redrafted does not mandate the drilling of groundwater monitoring wells, and is equivalent to determining the need for monitoring stations on a case by case basis. Chapter 20-5M-1 et seq. does not base the decision to remediate on the result of risk assessment techniques, as it has a non-degradation policy, which does permit contamination based on low risk. This comment and its response is applicable to Sections 5.9 and 9 in the redrafted rule.

8.1. One commentor stated that existing wells should be allowed for monitoring if possible. Although this Section was deleted, and replaced by Section 5.9 in the redrafted rule, The Division agrees that existing wells should be utilized wherever possible, as duplicate borings may only serve to increase the potential for groundwater contamination.

One commentor asks what mechanism is available to request sampling before a facility is put into operation. The redrafted rule requires a new facility to complete a GPP prior to construction, and this GPP must be submitted for approval along with the permit application. If the Director believes monitoring is necessary prior to operation then he may require it through a revision to the GPP.

8.1.2. One commentor stated that if an impoundment may impact groundwater quality then the type of liner should be specified, or a least a minimum design standard provided. The Division maintains that flexibility, in impoundment liner design and specifications, is necessary to effectively regulate the universe of impoundment types. This comment and its response now applies to Section 5.5. and 5.6.

8.1.3. Two commentors stated that as drafted this Section is overly broad and can allow for secondary containment on automobile gas tanks and small pole mounted transformers, and any tank regardless of size.. This Section has been deleted, and care was taken to eliminate this possible interpretation in appropriate Sections of the redrafted rule.

Another commentor requests the definition of naturally occurring substance be changed. This comment has been responded to in 2. Response to definitions proposed by commentors.

8.1.4. One commentor stated that a facility should be exempt from this Subsection unless the Director determines otherwise. Although this Section was deleted, the issue is still addressed in Section 5.3 of the redrafted rule. The new language only requires material storage areas that have the potential to impact groundwater to have appropriate controls.

8.2. One commentor state that pipelines conveying innocuous substances should be exempt from leak detection and secondary containment requirements, and that pipelines excluded from regulation under 40 CFR Part 280 should be exempt. The Division acknowledges the fact that pipelines which do not have the potential to impact groundwater quality should not be subject to leak detection and secondary containment. The redrafting of the proposed rule states that only pipelines conveying materials which have the potential to contaminate groundwater... are required to have appropriate controls. This comment and its response applies to Section 5.7. in the redrafted rule.

8.3 One commentor stated that requirements for Underground Storage Tank regulated sumps and tanks should be no more stringent than federal requirements. In response to this comment the Division offers that if a sump or tank has the potential to contaminate groundwater, then it should have appropriate containment. The Division has modified the language to more clearly express this intent. Section 5.8. in the redrafted rule states that containment should be appropriate to the type of tank and its contents. If in fact this requirement is more stringent than federal requirements,

nothing precludes the State from having a more stringent regulation.

8.3.1 One commentor states the amount of secondary containment must be specified. The Division believes that since the amount of secondary containment should be dependent on tank size, amount and type of material routinely stored in a tank, etc. that it would be inappropriate to attempt to specify a containment capacity for all tanks. This comment and its response applies to Section 5.8. in the redrafted rule.

9.1 One commentor states that notification should only be required if it is likely to have a negative impact on a useable groundwater source. Another commentor questions what is required by continued verification. This Section has been deleted in the redrafted rule, and has no close counterpart.

9.2 One commentor stated that where groundwater is not useable, a facility should be permitted to continue operations if it can show its operations are not contributing to further degradation of groundwater. The Division emphasizes that the Act mandates that where human induced contamination is present in the groundwater, no further contamination is allowed, and every reasonable effort shall be made to identify, remove or mitigate the source of such contamination, and to strive where practical to reduce the level of contamination over time to support drinking water use. This comment and its response applies to Section 5.1. in the redrafted rule.

10.1.5. One commentor stated that the regulation should detail where a Wellhead Protection Area Delineation can be found. The Division concurs with the comment and has added to the Subsection that Wellhead Protection Area delineations can be obtained from the West Virginia Bureau of Public Health. This comment and its response applies to Section 5.10. in the redrafted rule.

11.2 One commentor questions who will determine what is innocuous, and by what methods. One commentor stated that the term innocuous should be defined to include all low toxicity, nonhazardous wastes, including wastewaters. First, as explained in specific comments #3, the Director will determine what is innocuous. The determination as to what constitutes innocuous must be made based upon site specific conditions. Factors such as geology, soil type, stored material compounds, pH, etc must be considered before a determination could be made. Allowing this determination to be made by the Director provides sufficient flexibility to effectively regulate the wide variety of impoundments, and eliminates the need for a specific definition. This comment and its response applies to Section 5.6. in the redrafted rule.

11.4. One commentor stated that statistical methods should be used to determine if contamination has occurred and that a maximum of four sampling events over the period of a year is sufficient to determine if contamination has occurred. Section 11.4 of the proposed rule has been deleted, its closest counterpart in the redrafted rule is found within the definition of contamination, and in Section 9. The Division believes the most appropriate place to address the issue of statistical methods for determining if contamination has occurred is in the reserved Section 9.3. - remediation guidelines. With respect to only four sampling events per year the Division believes that it may be necessary, based on sampling problems, or sample loss, or inconclusive results to require more than four sampling events per year, and therefore will not limit sampling to four events per year.

Section 12 - Prohibitions

One commentor stated that this Section is problematic and that its application to industrial establishments is unclear. Furthermore the commentor questions whether or not this Section was intended to apply to facilities/activities regulated by the Division's Office of Oil & Gas. Section 12 in the proposed rule has been changed to Section 8 in the redrafted rule. DEP responds by stating that this rule only applies to those facilities or activities which are regulated by the Division's Office of Waste Management or Water Resources. The intent of this Section was to have a mechanism to stop a person from deliberately disposing of, for example, solvents, out the back door. This Section could apply to an industrial establishment or it could apply to an individual homeowner as the Division is the groundwater regulatory agency for unassigned facilities or activities. With regards to the question of whether or not this Section can be enforced by the Office of Oil and Gas the answer is no, this rule does not apply, its effect is only for those facilities that are regulated by the Division's Office of Waste Management or Water Resources, or are unregulated.

One commentor requested that the "/or" be deleted. The Division believes the "/or" does not allow a facility to unlawfully dispose of materials merely because they have a valid permit. The Act would prevent the issuance of a permit which would allow this type of disposal. The /or is necessary as not every activity regulated by this rule will have a permit.

Section 13 - Remediation

One commentor believes the DEP lacks authority to order a replacement of a water source as a mitigation effort. DEP

believes the necessary statutory authority to order the replacement of a groundwater source is provided for in Chapter 20, Article 5M, Sections 10 (f) and 13 (b). This comment and its response applies to Section 9.2. in the redrafted rule.

13.1. One commentor states that the Division has the "duty", not just the "authority" to order remedial action. The Division agrees that we have the "duty" to order remediation where appropriate, but believes a restating of language in the Act is unnecessary for this issue. This comment and its response applies to Section 9.1. in the redrafted rule.

13.1.1. One commentor stated that the word "possible" was more appropriate than "practical". The Division agrees that this Subsection allows room for argument as to what is practical. However, since groundwater remediation is both extremely costly, and not always effective, the Division believes that the use of the word "possible" would mandate the use of uncertain permanent solutions, when in fact a temporary solution may be more appropriate when one considers the continuing evolution of groundwater remediation technology. This comment and its response applies to Section 9.1.1. in the redrafted rule.

13.1.2. One commentor stated that remediation should not rely "at all" on dilution and dispersion, and suggested modified language. The Division responds by stating in certain cases it is not possible to clean up 100% of contamination. The physical and chemical properties of the contaminants, and their interaction with the aquifer are complex, therefore dilution and dispersion may be the only acceptable treatment available for selected constituents or when the point of diminishing returns has been achieved in the remediation project. It is the Division's intent to not primarily rely on dilution or dispersion if proven cleanup technologies exist. The Division believes the Section as written acknowledges that cleanup efforts are rarely 100% effective, and will leave the Subsection as written. This comment and its response applies to Section 9.1.2. in the redrafted rule.

One commentor stated that it "doesn't take much to justify something as economically unfeasible" The Division agrees that the term "economically feasible" could be interpreted in numerous ways, and therefore has added the words ",as determined by the Director." to the end of this Subsection. This comment and its response applies to Section 9.1.2. in the redrafted rule.

13.2 One commentor stated that in certain situations the Director should be required to order mitigation. The Division maintains the requirement for mitigation must be considered on a case by case basis. It would be unfeasible to attempt to list every possible scenario that may involve mitigation. Mitigation will be required when the Director believes it to be appropriate, only after the circumstances are taken into consideration. This comment and its response applies to Section 9. in the redrafted rule.

13.2. One commentor stated that the "may" should be changed to "shall". This Section has been deleted from the redrafted rule, but language was added in Section 9.2. to allow the Director to require compensation for loss of beneficial use of groundwater when he deems it necessary or appropriate.

One commentor stated that groundwater monitoring requirements should not be required until groundwater has been classified by use, and furthermore that remediation should only be for those constituents which were historically or currently used. The Division responds to the first issue in I., the General Comments Section. The second issue is not currently addressed in this rule but will be considered when the reserved Subsection 9.3. of the revised rule is promulgated.

NR#7226/4758LST
12/10/92

ATTENDEES AT PUBLIC HEARING ON
TITLE 47 SERIES 58

<u>Name</u>	<u>City</u>
Roger Nordlinger	Nitro, WV
Norm Steenstra	Charleston, WV
Tom Degen	Chloe, WV
David Yaussy	Charleston, WV
Andrew A. Frishkorn	Coraopolis, PA
Libby Chatfield	Charleston, WV
Joe C. Bender	Clendenin, WV
Patrick Pearlman	Charleston, WV
Richard F. Sherman	Belle, WV
Bruce R. Leavitt	Pittsburgh, PA
James Smith	Charleston, WV
Barbara Smith	Charleston, WV
Richard G. Baier	Charleston, WV
William Bosworth	Lancaster, OH
Gary A. Jack	Fairmont, WV
Jeffrey S. Laskey	Coraopolis, PA
Mike McThomas	Charleston, WV
Ben Greene	Charleston, WV
Chris Hamilton	Charleston, WV
Jerome E. Cibrik	So. Charleston, WV
Ronald Griffin	Clarksburg, WV
Clayton Roesler	Hurricane, WV
Timothy P. Mallan	Roanoke, VA
Missy Woolverton	Charleston, WV

Circumstances Resulting in this Filing

47 C.S.R. 58

**Groundwater Protection Regulations
Legislative Rule**

This is a new rule that implements the provisions of §20-5M-5(d). This rule provides for a series of practices which are to be followed by any person who owns or operates facilities or conducts activities subject to the provisions of §20-5M-1 et seq..

47-58
p.9

GROUNDWATER PUBLIC HEARING
July 27, 1992

Introduction: "Good evening ladies and gentlemen. I believe it's a little after five and time to get our public hearing, concerning proposed legislature establishing procedures for the certification of monitor well drillers, underway. Gentlemen, are we ready to begin?"

"The Department of Environmental Protection (DEP) has filed with the Secretary of State's office proposed regulations defining the procedures for the certification of monitor well drillers. The filing initiates the required public comment period and it is the first step in seeking legislative approval of the rules. The new regulations are designed to ensure monitor wells are properly drilled, constructed, altered and/or abandoned.

"Monitor wells provide data used to determine if ground water contamination has occurred and monitor progress of site-specific remediation efforts. The proposed rules have been developed as a result of the implementation of the Groundwater Protection Act, which provides for the protection of public health and ground water aquifers.

"We are here this evening to take statements concerning the proposed regulations. We will entertain public comment until tomorrow at 4 p.m., July 29. The reason for the short comment period in this case is we need time to prepare a presentation for the legislative rule-making committee and hopefully get the proposed regulations introduced into the legislature come January.

"At this time, we'd like to invite anyone who chooses to make statements to come to the podium and deliver them. I see here, through the sign-up sheet, Mr. David Yassey has comments concerning these proposed regulations. Mr. Ben Greene has also indicated he would like to speak. Mr. Greene, would you come forward at this time?"

Ben Greene: "For the record, my name is Ben Greene. I'm representing the West Virginia Mining and Reclamation Association and the WV Coal Association. Together, we compromise more than 400 companies. We make up more than 90% of the coal production and some other mineral production around the state.

"The purpose is to express our comments, observations and views on Title 47, Rule 59 that has been proposed for monitoring well drilling certification. It is ironic, when you review the rules, in our judgement, that we see the Department of Health (DHHR) proposing a

monitoring well certification program when we have not seen any septic tank or other known ground water influences that are more important, in our judgement, than the certification program.

"Though I question whether a \$225 fee is of economic significance in terms of the individual, when you compare that to the more than \$20 million that has been estimated in the insecticide, pesticide and fertilizer regulations that public comment has already been taken on, to the individual it does become very significant.

"For the coal industry this raises several questions. The authority for issuing seems to come from 5M5b where the word 'monitoring' does appear. It does not appear beyond that that I can find in this statute. It does seem to question maybe the length and breadth of the regulation is a little bit of overkill.

"As you begin the review of these regulations, it tends to vest certain authority in the DHHR and then it invests certain additional authority in the Chief of the Office of Water Resources (OWR). In the definition section, the Water Resources chief is given designed standards and locations by definition authority, whereas the DHHR commissioner is given application and certification form duty. And then track over to the enforcement at 3.2 and there there seems to be a transfer from the DHHR back to OWR.

"Now if you can find all that and go back to what the act itself says, the act says those regulating agencies that have ongoing programs will continue those programs. Of course all of our ground water monitoring experience has been under the former Department of Energy, now the DEP, and specifically in their mine and reclamation sections.

"So if I could make a recommendation, it would be that there needs to be at least a coordinated effort, site specific and agency specific, that is clear cut in these regulations.

"A certifying monitor well driller has an on site reference. On site, in terms of the mining industry, you could talk permit, you could talk the operation or you could talk actual drilling site.

"If you take registered, professional, engineering kind of experience where you're talking supervision, you're talking somebody who looks over multiple permits and multiple areas. I'm not quite sure what was intended here by on site. If you go back to the previous regulation at 2.13, they are already in effect. There you're talking about the individual that is actually operating the drilling rig. I think that could be the individual that's standing there either pushing the buttons, holding the wire or manning the rotary drill, which is the most common in the mining industry.

"And then if you go to 2.8, 'an individual that engages in monitor well drilling construction, alteration or abasement or who

supervises these activities.' And that is by far the most preferable definition. Although there seems to be an interchanging, and I don't know whether that is fault or a flaw in the regulation or a fault or flaw in my research. But there seems to be a possible interchanging of certified monitoring well driller and just monitoring well driller. It may be intended, it may not. It certainly seems, in my judgement, to need to be clarified.

"You go down to 4.2, '2 years under the supervision of a certified mine driller.' If you take that to the mining industry, we've been drilling monitoring wells since the passage of the Federal Surface Mining Act in 1977, and more particularly since the permanent program in WV granted primacy on January 21, 1981. So we have a long history of drilling monitoring wells under our regulated program, if you will. I don't know whether we intend to jump over that now with a new agency and a different program or not. I simply raised the question.

"There is a second experience qualification at 4.3 in the proposed regulation. It talks about having drilled several wells as a business. We in the mining industry do not do it as a business, but as a requirement of obtaining permits and as a requirement of both federal and state law. I would hope that experience would be as good as somebody that is out there on the commercial market. I would think that it would be.

"Again, another observation about a certified program is I don't know of anything technically, technologically or scientifically that is wrong with the ongoing program. I'd like if anybody'd show any scientific fact that there is in fact a huge program here in how monitoring wells are being drilled, particularly in relation to the mining industry.

"4.5 gives the commissioner, and here the DHHR has a new name in terms of public health I believe comes in, and it seems the commissioner can suspend or revoke or he has certain powers, yet you go back to the definitions and those powers, I don't think, are properly conferred. Nor do I see how he can revoke something when he has transferred the enforcement to OWR or out to the other Division of Environmental Protection, being mines and reclamation. So, we need to, in my judgement, be clear in who and what agency is really in charge.

"One that I've had the most feedback and one that needs to be rethought and given additional consideration should these regulations go forth is 4.12, the oral and written examination requirement. When you're dealing with the mining industry, again you're dealing with a group of people who are scared to death of written examinations. It would also seem to me that the 70% is a very arbitrary figure. The 30

day waiting period requirement again may be penal.. If a guy is employed and he's a driller, in particular if he's a contract driller, the possibility he may have to be off for 30 days while he waits to take another oral exam could be a very penal regulation. I'm sure it wasn't intended that way but as written and as I interpret it, it certainly could have that kind of power. But I would urge your proper attention and study of 4.12, the oral and written examination part.

"Part 5 of the rig identification, I fail to find any statutory authority or any requirement that says the drilling rigs have to have the numbers of the certified drillers on the side in numbers 2" high that are plainly legible and visible from a distance. Again a mining industry scenario of a rotary drill where you may have 3 or 4 drillers who are certified who operate the same piece of equipment 3 shifts a day. It's not unusual. You could be drilling monitoring wells generally in the daylight hours on any two shifts. So you could have a series of numbers that might be deemed a requirement that is more detrimental to what you're trying to establish here than not. It would seem to me the proper direction of this regulation would be dwelling more in the hydrogeology and the how and what you've encountered and how you protect it. It would need identification in the surface facility, the concrete pad and some of the other things that seem to be creeping in on the certification.

"And finally, my comments will be on #7, the due process part. And here it provides for a DHHR hearing and declaratory ruling procedure. I take you back through the scenario that enforcement had already been turned over to OWR back in #3. OWR, in turn, looks to Mines and Minerals, who actually carry out the program. So I wonder what good that tedious procedure would be unless it would only have application, and I believe it goes beyond that, to the procedure of testing and certification to begin with.

"Mr. Chairman that concludes my comments on Rule 59, Title 47. If there are any questions I'll be happy to respond. If not, I thank you for the opportunity to participate in the hearing."

Chairman: "Thank you Mr. Greene. I would be amiss in not identifying the participants in the hearing. Most of the people do know each other, but we'll go ahead for the sake of the record and identify the OWR representatives.

"I am Jim Waycaster. I'm with the public information office of OWR. To my right is Dave Watkins. He's the program leader of ground water. Dr. Eli McCoy, chief of OWR, is in the audience as well.

"Mr. Yasse, are you ready at this time to make your remarks?"

David Yassey: "My name is Dave Yassey. I'm an attorney with the law firm of Robinson and McElwee in Charleston. I'm here today on behalf of the WV Manufacturer's Association. The WVMA is an organization comprised of over 200 businesses in the industrial sector. It has a history of constructively commenting on the environmental regulations that are put forth by the DEP and other agencies. It wishes to continue with that history this evening.

"The WVMA opposes promulgation of these monitor well certification regulations because it believes they are unnecessary and unduly expensive. A disproportionate amount of the funds that are dedicated to the ground water program of the ground water fees that are regulated under the ground water fee regulations are going to be dedicated to the certification program.

"WVMA believes all available funds should be directed to identifying and/or mediating ground water contamination. We understand there is some belief the Environmental Protection Agency (EPA) will require a monitoring well certification program. But we do not believe there are any current well driller certification regulations that have been proposed by the EPA. Nor do we expect it will be occurring in the near future.

"We think that if any type of monitoring well regulations are appropriate at this time, it would be a regulation which would establish regulations for monitoring wells in their construction and the way they are put into the ground, rather than a new program for certifying monitoring well drillers.

"If, despite the WVMA's concerns, this regulation is adopted, the WVMA is concerned about requiring certification for all supervisors. It was alluded to by Mr. Greene, not everyone who supervises at a monitoring well drilling site should be required to have certification. We're thinking of situations in which a company would have a geologist present, either as an employee of the company or as a consultant, who would be involved in directing well placement and actually supervising, but not directly supervising, the drilling of the monitoring wells themselves. In that situation, as long as there is someone present who is certified for monitoring well drilling, it should not matter if there are additional people participating in the supervision as long as someone is responsible under the act.

"Also we feel there is a need to clarify what certification applies to individuals and what certification applies to persons. The terms are often used interchangeably in the act, whereas they may have very different legal meanings. A person, of course, can include such things as a corporation or a partnership, where an individual would presumably mean a single person.

"Furthermore, we believe there is a need to define the term 'monitoring well.' Any certification program which will be applying to those who drill monitoring wells should have some definition of that term included.

"I have no further comments at this time, unless there are any questions. Thank you."

Chairman: "Would anyone else at this time like to make a statement regarding the proposed regulations? If not, we'd like to reiterate that the agency will be accepting comments until tomorrow at 4 p.m. regarding these proposed regulations. I'd also like to point out that when these were drafted all references to DNR will be changed through the proclamation to DEP.

At this point we would like to close the formal portion of the hearing and agency people will remain to answer questions regarding these proposed regulations. Thank you very much for attending."

Chairman: "I open the record for this evening's public hearing concerning two proposed rules that implement the requirements of the Groundwater Protection Act Chapter 20-5M-10. Now we're going to talk about these two rules separately in the statements portion of the hearing this evening.

"The first proposed rule we'll be speaking about establishes civil administrative penalties for Groundwater Protection Act violations. The rule also sets forth the procedure and criteria to be used in assisting the civil administrative penalties. These proposed penalties may be used instead of civil action to address violations of the act. However, they do not inhibit or prohibit due process because the violator retains the option of accepting or refusing the penalty order.

"First, I would like to indicate the first proposed rule of the governor's proclamation all the references to DNR is changed to DEP.

"At this point we would like to begin the statement portion addressing the civil administrative penalty rule. On the sign-up sheets, Mr. Norm Stenstra indicated his desire to speak concerning these proposed rules. Mr. Stenstra. . ."

Norman Stenstra: "Being first is always a bummer. To start I'd kind off like to set the background in prospective of what happened with the groundwater bill and where we're going, particularly with regulations that came out of that legislation.

"I think it's wise to look at this as a rough experiment in cooperation between industry, the regulatory agencies and the environmental community. Particularly what happened this time that

was different was the formation of working groups. Those were groups of people that tried to get together on specific topics and look at and identify the issues and, if possible, rub out some of the rough points. But, at no point in time, was it ever meant by any party, I believe, to be a consensus. I think we need to look at it as a preamble to the process.

"That's what I wanted to talk about a bit was the regulatory process that the legislature, in their wisdom, have created. This is the beginning of the ground water process, to come to the hopes and dreams and expectations we all had about ground water.

"As I said, it was an experiment. It was a rough one. It sometimes worked and sometimes didn't. Getting citizens down here or citizens at different places in the state to meet on specific issues--be it solid waste, be it electric power, was difficult. They were volunteers that worked on their own terms. I think the idea was to get the issues out and begin the process.

"But that process has to be taken in context with the legislative intent of that bill. Having been identified with this issue now for 4 years, and it being the #1 priority of the environmental community, you have seen and will continue to see meetings. In Morgantown there were specific environmental comments. You'll hear some tonight, yet, after my speech.

"We intend to continue to define and refine these regulations and go through the entire process, that involves not only legislative review on the committee, but also the legislative session in 1993.

"So I just wanted to set that as a tone that we all kind of decided to throw the dice on this and sit down and talk.

"In many ways this has been a very fruitful endeavor for people to try to solve, a tough and complicated issue. This is the beginning. So I leave you with that. Okay?"

Chairman: "Thank you Mr. Stenstra."

David Yasse: "My name is Dave Yasse. I am an attorney with the law firm of Robinson and McElwee. I am here tonight on behalf of the WVMA. The WVMA is composed of about 200 companies with emphasis in the manufacturing sector.

"The civil administrative penalties that have been proposed are a matter of great interest to the membership and we appreciate this opportunity to comment on them.

"We have several issues we would like to bring out tonight. There will also be a written comment. This will be filed tomorrow. But I'd like to hit some highlights tonight.

"The first concern is the matter of duplication of penalties. WVMA is not sure how the civil administrative penalties will be implemented by the DEP, especially in light of those civil administrative penalties which currently exist 47CSR4 which address solid waste and hazardous waste violations.

"We would oppose operating under both systems if, for example, there's a ground water violation at a solid waste facility. Both this regulation and all other civil administrative penalty regulations, including the one for the air caps, should provide the payment of one civil administrative penalty and prevent assessment of any other cap by the DEP.

"In reference to Section 3, we do not feel there is any need to provide authority in this rule for issuances of notices of violations. This rule should only deal with civil administrative assessment procedures rather than establishing which actions or activities for emissions constitute penalties. We believe those should be handled in a separate regulation such as the ground water protection regulations, which we'll be addressing later.

"If an NOV can be issued, there's separate authority for issuing an NLV under this regulation. Then there ought to be a separate appeal provision which isn't provided by Section 3.

"Next, we believe the DEP should structure its rules in the following fashion. First, after notice of violation is received by the assessment officer, he will determine whether a civil administrative penalty should be recommended to the director. Notice, at that time, would be given to the alleged violator, who would be given the opportunity to request the informal hearing, this referenced by the regulation. If there is no request, the civil administrative penalty recommendation would go to the director, who would decide whether to assess it or not. If it was assessed, the director would give notice of the assessment to the alleged violator and give an opportunity to appeal to the Water Resources Board within 30 days.

"If an informal hearing is requested on the other hand, it would be held and a recommendation for withdrawal or issuance would be made to the director, who would again decide whether the assessment should be lowered or issued as recommended. And there would again be an appeal period of 30 days.

"Now it may be this is only a restatement of what the Division intended. If so, we recommend the rule be redrafted and set out in a little clearer fashion.

"Again, the penalties for minor violations in the Table C matrix are higher for minor violations than those assessed under the matrix C for the solid waste and hazardous waste civil administrative penalties. We do not believe violations of ground water requirements

should result in greater penalties under the Groundwater Act than they would under the Hazardous Waste or Solid Waste for minor violations.

As I said, the WVMA will be submitting more detailed comments tomorrow. However, these represent the highlights. I hope they will be given consideration. Thank you."

Chairman: "Thank you. Would anyone else like to make a statement regarding the civil administrative penalties portion?"

"If not, we'll move on to the second rule which is the proposed series of practices which must be followed by any person who owns or operates facilities or conducts activities subject to provisions of the Groundwater Protection Act.

"The practices are designed to prevent ground water contamination from facilities or activities that are already subject to regulatory requirements by the DNR, or now DEP. These facilities or activities include generators of electrical power and industrial establishments such as refineries, tanneries, paper or pulp mills and chemical plants. The proposed rule would not apply to facilities or activities that, although under the jurisdiction of the DEP, are regulated by other agencies through valid agreements. Class II injection wells would be included in this category. At this time we would like to open up for statements regarding the proposed rule. Mr. Freshorn. .
."

Mr. Freshorn: "I don't really have any statements to say right now. Except if there were questions it would be appropriate to ask at this time."

Chairman: "There are no questions at this time. Mr. Degen, would you like to speak at this time?"

Tom Degen: "My name is Tom Degen. I'm on the Board of Directors of the WV Environmental Council. I was also in one of the work groups. We dealt with solid waste, which is where my emphasis is. I have some written comments about specifics. I won't go over all of them now, but I do have some highlights I'd like to go over.

"Section 47-58-12, pro-emissions. I think the '/or' where it says 'and/or' needs to be removed. Otherwise the sentence appears to allow the contamination of ground water by any facility or activity with a valid permit. I feel this is contradictory with the provisions of the Groundwater Act. Also, it should be a permit that specifically allows the contamination of ground water, not just a permit.

"Under remediation, I feel the provision should have not just the authority, but the duty to order remedial actions as provided in the Groundwater Protection Act, Section 5E.

"I find that throughout the regulation much of the language is vague to the point of rendering the regulations unenforceable. Phrases and words like 'inspected regularly,' 'maintained regularly,' 'should,' 'appropriate measures,' 'may,' are not terms that provide a basis for enforcement action. These things should be spelled out.

"Along the same lines, there are references throughout to contamination 'prevention practices,' 'skill prevention practices,' 'run-off and/or infiltration control systems,' etc. . . . If there is a standardized body of practices like that, they should be referenced. Otherwise, you don't really know what's being talked about here. If there is not a standardized body that can be referenced, then it should developed.

"There isn't enough detail in these regulations for an applicant or an operator to really know how to comply. Section 5.7.4 mentions, well actually it doesn't mention, I feel their should be requirements for review and approval of the ground water protection practices and the BMPs. To issue ground water certification is meaningless if the agency doesn't review the BMPs and ground water protection programs and issue some kind of approval.

"In Section 6.1.2, I assume here that it is referring to, among other things, coal combustion byproduct's surface impoundments. If that's true, I feel they're fairly inadequate, even though I understand the regulations which are more protective of ground water could be applied. That would be Title 47, Series 38, the solid waste regulations. But even in those regulations, coal combustion byproduct's facilities are not subject to the same requirements as other solid waste facilities.

"In the Groundwater Protection Act, Subsection H of Section 5, states that E,F and G of the Groundwater Protection Act 'shall not apply to coal extraction and earth disturbing activities directly involved in coal extraction.' It should be remembered that a coal combustion byproduct facility is not a coal extracting activity or an earth disturbing activity directly involved in coal extraction.

"With this in mind, it is unclear why these facilities are regulated differently from other solid waste facilities. For example, in 5.5.2AH in the Title 47 Series 38 regulations, coal combustion byproduct's facilities are exempted from the provisions of Section 483CB, which are the liner requirements for surface impoundments. They are also not subject to any of the ground water monitoring requirements.

"I feel this is irresponsible. Without ground water monitoring wells, how will it be known these impoundments do not need to meet the same requirements that other solid waste facilities must meet? I think I'll leave off the specifics right now.

"I also want to address the process. I was a member of one of the work groups. I want to discuss some of the problems I had with the work group. I was in another work group which had a secretary of minutes. This work group had no secretary, no minutes, no record. Reports came out of the committee that were not seen by the other members of the committee, voted on and approved, like minutes would be.

"As a volunteer, I felt I was at a distinct disadvantage. I have to leave my work and miss pay to go down and then I have to pay gas, phone, meals out of my pocket. So I'm paying twice to participate in this project.

"I've been in other work groups where compensation was offered and expenses. I was invited to be on the work group to help develop practices that would eventually be formulated under regulations. Yet when I submitted comments on the drafted solid waste regulations, I was told we weren't going to address them. I don't feel that's appropriate. I feel that was the perfect time and place to address those regulations.

"Our group did not finish at the last meeting we had. We hadn't finished going over comments that another member and myself had submitted, yet another meeting was not called. I didn't even receive notices the regulations were promulgated and out to public notice. I found out on my own, more or less by accident, and had to ask for a copy of the regulations.

"I guess in summary, the first person that says the environmentalists had input into this process is going to get a bit of an argument from me. I feel we were given just enough input so that someone could say that, but we really don't feel that the input was really seriously considered. Thank you."

Chairman: "Mr Yasse. . ."

David Yasse. . . "Again I'm Dave Yasse. . . here on behalf of the WVMA. The WVMA believes the DEPs proposed ground water protection regulations are a reasonable attempt to set standards for facility design or activities which will prevent ground water contamination. However, the WVMA does have some concerns about the rule.

"First and foremost, it is somewhat confusing as drafted. We would appreciate clarification of, for example, the application of Sections 8, 9 and 10. Are they intended to imply the facilities which

are not electric generating stations or industrial establishments or do they apply to new types of sources at those facilities which are not currently covered by the regulations? This needs to be clarified somewhat before the WVMA may comment on the extent and scope of the sections.

"Another problem that is presented is difficulty in determining what constitutes contamination under the rule. Under the Act we believe that existing natural background water quality is to be protected. And therefore, any discharge which does not increase the natural concentration of a constituent in ground water should not be considered contamination.

"Furthermore, increase of a constituent above natural background levels should not be considered contamination if it is allowed by a permit, deviation or variance, as provided by the act.

"The WVMA believes that the definition of industrial establishment, which establishes the scope of the facilities which are covered by the act, should be similar to the language used in the act itself. By defining industrial establishment in terms of facilities and activities which may adversely affect ground water, which are not otherwise regulated by the DHHR or the department of agriculture. The DEP will be extending its jurisdiction to the limits allowed by the act without exceeding those limits.

"I would contrast the DEP's definition which extends DEP's authority to any activity which causes a waste, which would include our houses.

"We encourage putting BMPs and Groundwater Protection Plan requirements together in the same section to eliminate redundancies and make the GPP the centerpiece of the DEP's Groundwater Protection Program.

"The motivation for prevention of ground water contamination is already provided by the Act. A means to accomplish it should be left to each facility through the use of the GPP. There are already many ground water protections in place as a result of the Underground Storage Tank Act, Spill Prevention Control Countermeasures Program, NPDES program, RICRA and the Solid Waste Program, just to name a few.

"Each of these requires BMPs or design standards as part of those regulations in order to prevent ground water contamination. The GPP should be used to fill in the gaps in the coverage already provided by those acts, depending on what requirements already apply to each facility. There is no need for a regulation which attempts to duplicate. It may actually contradict the requirements of those environmental programs.

"We do have some concerns about the specifics of the regulation that's been put forth. We will address those in written comments. We

are basically looking for a consolidation and a different grouping to make the regulations clearer and more easily applied. We also will be proposing an expressed ground water monitoring section which would provide authority for the director to require ground water monitoring where he believes it is appropriate.

"As I say, we will be filing written comments tomorrow. We look forward to working with the DEP further on this rule. Thank you."

Chairman: "Would anyone else like to make a statement concerning the proposed practices and regulations? If not, the agency will be receiving comment until 4 o'clock tomorrow afternoon on both the civil administrative penalties and the proposed practices regulation. At this time I would like to close the statement portion of the hearing and representatives of DEP's OWR will remain here to answer your questions."



west
virginia
highlands
conservancy

MAILING ADDRESS • P.O. Box 306 • Charleston, West Virginia 25321

Publishers of the Highlands Voice and the Monongahela National Forest Hiking Guide

RECEIVED

JUL 31 1992

DIVISION OF WATER RESOURCES
GROUND WATER OFFICE

July 28, 1992

Laidley Eli McCoy, Chief
DEP, Office of Water Resources
1201 Greenbrier Street
Charleston, WV 25311

RE: Groundwater Protection Act
Proposed Rules, Title 47,
Series 56, 58 and 59

Dear Eli,

My ever increasing work load at the clinic precludes my being at the public hearing on the proposed regulations implementing the Groundwater Protection Act for Civil Administrative Penalties (Series 56); Groundwater Protection Practices (Series 58), and Monitoring Wells (Series 59).

However, I do have several questions and observations on each of the proposals and submit the following three pages of comments on behalf of myself and the West Virginia Highlands Conservancy.

This is restating the obvious, but please know that WVHC, and I personally, remain intensely interested in the development and implementation of all phases of the Groundwater Protection Act.

Most disturbing to us at this point in time are indications in these DNR proposed regulations for groundwater protection practices and in the Water Resource Board proposed groundwater standards that we are backsliding from the intent of the Act where existing sources of pollution are concerned. It is, was, and always has been my understanding of those tortuous task force meetings that Section 4 of the Act contemplated the elimination of current polluting activities. Timing and extent of reducing levels of contamination back to drinking water standards was left open, and flexible language about basing the level of remediation on "practical" measures was painfully allowed in the final draft, but the words "no further contamination" clearly meant that existing facilities would be required make efforts to revise, retrofit, or to take some action to improve the situation.

Current proposals both from DNR and WRB appear to bless, condone and allow existing sites to continue polluting with little or no regard to requiring improvements at those facilities.

Sincerely
Cindy Rank
Cindy Rank, President

Groundwater Protection Regulations (Title 47, Series 56, 58 & 59)
Comments on behalf of W.V. Highlands Conservancy...July 28, 1992
By Cindy Rank, President, HC 1, Box 227, Rock Cave, WV 26234

Title 47 Series 58: Groundwater Protection Regulations

Section 5 According to the definition of "Industrial Establishment" in 2.4, coal waste piles, coal preparation plants, and other coal related facilities are to be regulated according to Section 5: Protection Practices for Industrial Establishments.

I participated in the coal workgroup and the language in Section 5 absolutely and unequivocally does not reflect the discussions and drafts that came out of that group. I include here as Attachment A the last draft of that workgroup (5pp). The language in proposed regulation 47-58-5 is totally unacceptable.

Section 6 I was also party to the electric power workgroup, and while the proposed language in Section 6 is indeed the language that was considered by our group, in final regulation form, and in the context of the overall regulation as proposed, the language stops short of what I thought we had worked through.

Proposed Section 6 reads as if there is no obligation to address groundwater pollution at existing facilities beyond evaluating their "potential" to release contaminants to the groundwater.

It was always my understanding that the evaluation process would involve a certain amount of time and that we therefore agreed to extend the time frame for assessing current conditions at existing facilities, but that at the end of that assessment process there would be a mechanism in place that would trigger "every reasonable effort" to "remove or mitigate the source of such contamination" where problems were identified.

Groundwater Protection Plans were to require procedures to prevent groundwater pollution at all future sites, but would also be applied to existing sites in a reasonable fashion in a reasonable time frame according to the specific nature of the facility and the problems associated with it.

The language of the first two sentences of Title 47 Series 58 Section 9.2 is much more to the point and expresses more clearly the intended meaning of 20A-5M-4(b) as it was hammered out during those most difficult Groundwater Task Force meetings that addressed standards of purity and quality.

Without directing some cleanup of current pollution at existing sites these regulations are inappropriate and unacceptable.

The intention of the Groundwater Protection Act was not to bless, condone or permit current levels of pollution but to identify existing sources of pollution, to adopt reasonable measures to remove or mitigate those sources, to prevent pollution at future sites, and to strive to reduce levels of contamination over time.

Section 9.2 Although this section allows for a generous amount of discretion on the part of the director, i.e. in providing schedules of compliance, evaluating the level of protection, etc., it, more than any other section of the proposed regulations, states most clearly the intent of the 1991 Groundwater Protection Act.

Similar language must be adopted for all facilities addressed in sections 5 and 6 of these regulations, e.g. add a new 6.1.1.b. which reads "Where evaluation of an existing facility shows that contamination is occurring, a schedule of compliance must be submitted by the facility or director and approved by the director whereby the facility or activity must retrofit or improve or discontinue existing systems, activities, or procedures to make them, to the satisfaction of the director, protective of groundwater. Furthermore the facility or activity may be directed to begin remedial actions."

Section 13

13.1.1. When talking in terms of "preferred" solutions, the use of permanent solutions to the maximum extent "possible" is more appropriate language than "practical" as now proposed. The word "preferred" already allows sufficient flexibility for any lawyer, wordsmith, or industry mogul.

13.1.2. "If active remedial measures are technically and economically feasible", cleanup actions should not rely at all on dilution and dispersion. Forget the "primarily" altogether if there is a feasible, workable alternative.

13.2. It is not altogether clear to me just what this section says, but I assume it means that if, in fact, any required remediation does not fully restore the quality of the groundwater, then the director may order the facility or activity to mitigate for the loss of use, or for any significant adverse impact to groundwater. In some instances the director should even be required to order that mitigation (including replacement where loss of use is involved).

Title 47 Series 56: Assessment of Civil Administrative Penalties

Section 3.2. This section prescribes the procedures and content of Notices of Violations. There should be added a new section 3.2.4 that reads "Suggested corrective actions to be taken and a compliance schedule setting forth a time frame for accomplishing these corrective actions."

Section 6. Individual Civil Administrative Penalties are appropriate enforcement mechanisms to protect the groundwater resources of the state and are wisely included in these regulations.

Title 47 Series 59: Monitoring Well Regulations

Section 2.7 A definition for "monitoring well" is missing. This is an interesting approach, to say the least, but is it not important to include a definition here for clarity in applying the rest of the regulation?

Section 2.8 "Monitoring Well Driller" is defined as an individual who engages in monitor well drilling...or who supervises such activities. This is not sufficient or acceptable. The definition must be limited to the responsible individual at the drilling site, not to someone who could supervise say, from her home in Rock Cave.

Section 4.1. This section requires that a certified monitor well driller be "on site", but if that site is large, eg. hundreds of acres, it is not sufficient to have the certified driller at one end while drilling proceeds at the other. The certified driller must be on the well site itself.

Section 4.10 Denial, suspension or revocation of a certification is required to be in writing, and is to state specific reasons for the action, but reasons for suspension, etc. are only mentioned in Section 4.5 where incorrect information on an application can lead to suspension, etc.

a) It is not clear if or what other actions on the part of the driller, i.e. failure to act in accordance with the requirements of the law or regulation, falsification of records, deliberate disregard for DEP/DNR/DOH directives, etc., are grounds for revocation or suspension.

b) The Regulations should also include provisions for other enforcement orders, action, fines and/or penalties that can be taken against non-compliant drillers.

Sections 4.12 and 7 I realize that we have a Groundwater law that bends over backwards to encourage interagency cooperation and coordination, but in these Water Resource/DNR/DEP rules there is apparently no accountability to Water/DNR/DEP for the quality or administration of the examination for certification or for the Administrative Due Process afforded persons aggrieved by enforcement of the regulation. Should there not be required some typical contractual agreement, MOU, etc. between Water and Health that spells out expectations, standards, requirements, etc.????

Section 4.12 It is unclear why 70% on the required examination would be sufficient to demonstrate a thorough knowledge of the requirements of the Groundwater Act or regulations. Perhaps the content of the examination or the methods of evaluating the results of that process should/could be clarified in the cooperative agreement suggested in the previous comment.

TITLE ??
LEGISLATIVE RULES
DIVISION OF ENVIRONMENTAL PROTECTION

SERIES ??
GROUNDWATER PROTECTION ACT PROCEDURES

??-??-1. GENERAL.

1.1 Scope and Purpose. This rule establishes a series of practices which must be followed by any person who owns or operates facilities or conducts activities subject to the provisions of Chapter 20-5M-1 et seq. of the West Virginia Code and is subject to regulations by the Division of Environmental Protection.

1.2 Authority West Virginia Code 20-5M-5(d).

1.3 Filing date

1.4 Effective date

??-??-2. Definitions

2.1 "Practice" means any regulation, rule, policy, permit requirement, or other appropriate regulatory action which is protective of groundwater.

2.2 "Existing facility" means any facility that submitted an application to obtain a Chapter, 20, Article 5A, or a Chapter 22A, Article 3 permit before six months after the effective date of these regulations, and is not defined as a new facility.

2.3 "New facility" means any facility that submits an application to obtain a Chapter 20, Article 5A, or a Chapter 22A, Article 3 permit six months after the effective date of these regulations.

2.4 "Director" means the Director of the Division of Environmental Protection or his duly authorized representative.

??-??-3. Groundwater Protection Practices subject to coal mining activities.

3.1 Groundwater protection practices contained in or created under the authority of Chapter 20, Article 5A, Chapter 22A, Article 3, and the legislative rules promulgated thereunder, were enacted in part to protect groundwater and therefore are incorporated into this rule. In cases where such legislative rules are more restrictive or is in conflict with these legislative rules, the more stringent rule shall apply.

3.2. Each facility shall prepare and submit a groundwater protection plan on the forms prescribed by the Director.

3.2.a. The plan shall detail what groundwater protection practices, procedures, methods, and equipment to be implemented or installed to prevent groundwater contamination from the facility, including the requirements of other statutory programs. The plan shall also detail, but not be limited to, the methods of spill detection, the procedures for timely cleanup, and the method of disposal, or treatment of the spilled material. Each plan shall contain a written commitment of manpower, equipment and materials required to expeditiously control and remove any spilled material. The plan shall designate a spill coordinator. Each plan shall identify and provide an inventory of sources or materials that may impact groundwater quality.

3.2.b. The plan shall also contain a groundwater monitoring program. The groundwater monitoring program shall assure that the facility and the groundwater protection practices are protective of groundwater. The program shall specify the parameters to be monitored, the frequency of monitoring, and the frequency of reporting. All groundwater monitoring reports shall be submitted to the Director.

3.3. Protection practices applicable to new facilities.

3.3.a. New facilities shall be designed to be protective of groundwater.

3.3.b. New facilities shall provide sufficient groundwater information prior to facility operation, to determine representative background groundwater quality.

3.3.c. Impoundments which receive waste that may impact groundwater quality shall be designed, constructed,

and maintained in such a manner which will prevent contamination of groundwater.

3.3.d. Secondary containment is required for any process or storage activity in which materials are stored, or used that may impact groundwater quality. Such containment structures shall be adequately designed and constructed to contain for a time sufficient to allow removal and disposal without contamination of groundwater.

3.3.e. Submit a groundwater protection plan in accordance with Section 3.2.

3.4. Protection practices applicable to existing facilities.

3.4.a. Existing facilities shall take such action as necessary to prevent groundwater contamination. Each facility shall submit a demonstration to the Director no earlier than six months of the effective date of these regulations, and no later than the mid-term review date or the expiration date, whichever is earlier, of the Chapter 22A, Article 3 Permit.

3.4.b. Where it can be demonstrated, by groundwater monitoring, that an existing facility design is such that no groundwater contamination is occurring, continued groundwater monitoring is all that is required. Provided that if major alterations occur to the facility or if activities change they shall be accomplished in a manner which complies with Section 3.3. Furthermore, notification to the Director must be made in writing, ninety days prior to any operational modifications that may impact the groundwater quality.

3.4.c. Where it can not be demonstrated, by groundwater monitoring, that an existing facility design is such that groundwater contamination is not occurring, the facility shall submit a groundwater protection plan in accordance with Section 3.2. The groundwater protection plan shall be submitted within one hundred twenty days of notification by the Director.

3.4.d. Where it is determined by the Director, that an existing facility is contaminating groundwater the facility must submit a groundwater protection plan, in accordance with Section 3.2, along with a groundwater remediation plan upon notification by the Director. The groundwater remediation plan shall detail improvements to existing systems, activities, or procedures to make them

protective of groundwater. The Director may provide a schedule of compliance for completing the work if necessary. Upon notification from the Director, the facility must begin remedial actions pursuant to Section 4.

4. Remedial actions.

4.1. The division has the authority to take remedial actions or to order persons to conduct remedial actions. The division encourages agreements for investigation and cleanups in appropriate cases. These agreements can be agreed orders or consent decrees.

4.2. Upon a facility being ordered to take remedial action the following guidelines shall be complied with at a minimum;

4.2.a. Treatment shall be used to reduce the levels to the maximum extent practicable.

4.2.b. Groundwater containment, including barriers or hydraulic control through groundwater pumping or both, shall be implemented to the maximum extent practicable to avoid lateral and vertical expansion of the groundwater volume affected by the substance.

4.2.c. Source control measures shall be implemented to prevent or minimize additional releases to the groundwater.

4.2.d. Adequate groundwater monitoring shall be conducted to demonstrate control and containment of the substance.

4.2.e. The potentially liable person shall provide an alternate water supply or treatment for persons with water supplies rendered unusable by the releases.

4.2.f. If sufficient justification is demonstrated, the operator may request, from the director, an evaluation of the practicability of achieving groundwater cleanup levels by the currently employed system at any time.

4.2.g. If background quality cannot be determined on site, and the facility owner/operator can demonstrate beyond a reasonable doubt that certain constituents found in groundwater underlying the site were not used, handled, manufactured or stored on the facility, then the Director

may waive the facility's remediation liability for the constituents in question.

MEMORANDUM
DIVISION OF NATURAL RESOURCES
WATER RESOURCES SECTION

TO: Pat Campbell

DATE: July 8, 1992

FROM: David Chaney

SUBJECT: Comments on proposed
Groundwater regulations

Title 46 Series 12

Section 3.3 - The definition in 2.3 defines constituents as any natural or man made substance found in groundwater. Since the impacts by nature can not be controlled I suggest that section 3.3 should be changed to reflect human influence only.

Section 3.5 - Monitoring for dissolved metals conflicts with Title 47 Series 38 Solid Waste Management Regulations (SWMR). Section 3.8.4.e.A of the SWMR requires that all metals be reported as total unless otherwise specified by the chief. Also be advised that total metals is required monitored by Title 46 Series 2 Legislative Rules, West Virginia Water Resources Board (NPDES REGS) see Section 7.3.

Appendix A - Why are there no MCL for Arsenic, Barium, Copper, and sulfate. The information I have indicates that their are MCLs for these parameters (Drinking Water Regulations and Health Advisories by EPA April 1991). Also noted were differences in Standards vs MCLs.

Section 2.4 - The definition for groundwater should also consider waters of the state that are located in the vadose zone. If this were done then contamination if found could be remediated before possibly impacting waters in the saturated zone.

Title 47 Series 58

Section 2.6 - Definition not needed if you want to say coal just say coal, besides there are allot of other "Naturally Occurring Substances" other than COAL! I believe that this definition would confuse it for the other mining industries.

Section 2 - Why is groundwater not defined. Again I request that the definition include the vadose zone as well as the saturated zone.

Section 5.7.5. - Should add a condition that would require that the BMP plans be updated when the facility adds and or starts operations other then those listed in their plan.

Page 2
Pat Campbell

Section 5.8.2 - Should read "If closure is to be performed with waste in place then such closure shall be performed in a manner acceptable to the chief so as to prevent ground water contamination." This could require that the impoundment be closed as required by the SWMR.

Section 5.9 - Site location criteria suggest that this section be worded similar to that of Sections 3.1 and 3.2 of the SWMR.

Section 5.4,2 - What is the criteria to be used to determine potential for groundwater pollution. Shouldn't it be spelled out in the regulations.

Section 5.5.3.e - This requirement concerning subsurface borings should be placed in it own section not as a subsection for BMP.

Section 6, 7, 8, 9 and 10 - these section are unnecessary as specific requirement for individual facilities could be spelled out under single section spelling out any necessary waivers or modification. These regulation are confusing with all repetition in them.

Title 47 Series 59

Section 2.7 - Based on the definition for water well in the Board of Health Interpretive Rule 16-1 Series III and the definition for monitoring well in the National Water Well's "Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells", I suggest the following definition:

An excavation or penetration in the ground, that is constructed by a variety of techniques for the purpose of extracting groundwater for physical, chemical or biological testing or for measuring water levels.

WEIRTON
STEEL CORPORATION

Gene P. Current
Manager, Environmental Control
304/797-2394

RECEIVED
JUL 27 1992
Water Resources
Division

July 28, 1992

Laidley Eli McCoy, Chief
Water Resources Section
Division of Environmental Protection
Department of Commerce, Labor and Environmental Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

Attention: Patrick Campbell

Re: Comments on the Proposed West Virginia Regulations
to Implement the Groundwater Protection Act

Dear Messrs. McCoy and Campbell:

Weirton Steel Corporation ("Weirton"), an integrated steelmaking facility located in Weirton, West Virginia, hereby submits comments with respect to the proposed Groundwater Protection Regulations ("proposed groundwater protection rules"), which were public noticed on June 24, 1992. Comments are also provided on the proposed Assessment of Civil Administrative Penalties' Regulations ("proposed penalty rules").

INTRODUCTION

In general, Weirton supports the West Virginia Division of Environmental Protection ("the Division") in its development of regulatory standards to prevent the degradation of groundwater. However, Weirton has specific concerns with the timing, as well as the scope, of these regulations.

First, from a timing standpoint, Weirton believes that the Division has put the cart before the horse by proposing groundwater protection practices before the groundwaters of West Virginia are even classified according to their current and potential uses and before groundwater standards to maintain the current, or attain the potential, uses are established. Weirton strongly recommends that the Division delay the promulgation of its proposed groundwater protection rules and first concentrate on classifying groundwaters throughout the State by use and developing groundwater standards for each type of use. Once these use classifications and groundwater standards are in place, we recommend that the Division repropose amended groundwater protection rules that will help ensure that



groundwater quality is preserved (or, in appropriate cases, restored) and that, at a minimum, address all concerns raised in these comments. The Division should promulgate groundwater protection practices that apply only in areas of the State where groundwater has been identified as a significant, usable resource and is likely to be degraded. The monitoring of all aquifers and remediation to drinking water standards, without regard to cost and regardless of their potential for ever being used as a source of drinking water, is a misappropriation of scarce resources that the State of West Virginia cannot afford.

Regulations establishing groundwater use classifications, numerical standards, points of application and remediation procedures can either create a climate favorable for future economic development or encourage new business to move to greenfield sites thereby abandoning previously impacted industrial areas and exposing pristine aquifers to potential contamination. Inflexible groundwater regulations will make it difficult to convince entities that investments in existing and/or new facilities in West Virginia make good business sense.

Second, as to the scope of the regulations, Weirton believes that many of the groundwater protection rules proposed for facilities that generate electric power should apply to other industries as well, including the steel industry. In fact, many West Virginia companies, including Weirton, own and operate their own electric power plants. Under the proposed groundwater protection rules, Weirton would have to comply with the groundwater protection practices at Section 47-58-6, which apply to facilities that generate power, as well as the groundwater protection practices at Section 47-58-5, which apply to industrial establishments. In addition, Weirton believes that the Division's development of groundwater protection practices should concentrate on all types of activities that have the potential to contaminate groundwater and include other sources, such as agricultural, municipal and recreational activities, so that the full impact of such a program on all aspects of life in West Virginia can be evaluated.

Further, Weirton believes that the Division has failed to adequately estimate the economic impact that the proposed groundwater protection rules could have on the regulated community. The Division's conclusion that these costs are minimal and will be more than offset by avoiding potential remediation efforts appears to be predicated on the unrealistic position that all groundwater in the State is pristine, regardless of the existing and potential uses and conditions. At a minimum, the Division must recognize that the cost of complying with the proposed groundwater protection practices will be significant and will be passed on to the citizens of West Virginia directly through the shutdown of industrial facilities and the resultant loss of jobs and/or indirectly through higher prices for goods and services. Groundwater standards and practices should not impede property transfers or discourage the economic development of previously impacted property in heavily industrialized areas.

Steel mills typically occupy hundreds of acres of land that have been the site of industrial activity since the turn of the century. The application of stringent groundwater standards and protection practices across the board will place West Virginia steel companies at a competitive disadvantage with other steel companies outside of the State.

Finally, because the steel industry manages large quantities of raw materials and generates low toxicity wastes, it has compiled extensive data on the characteristics of such materials and wastes and is in a position to manage them

onsite in a manner that is protective of human health and the environment. Many of the low toxicity wastes currently are, or in the future may be, reused by the generating industry (e.g., mill scale and slag) or by another industry. If promulgated as proposed, the groundwater protection rules would impede waste minimization initiatives by discouraging the regulated community from managing wastes onsite prior to being reused, recycled and/or recovered onsite or offsite. The rules would also impede the steelmaking process by making raw materials management virtually impossible.

Weirton also has the following specific comments on portions of the proposed groundwater rules:

TITLE 47, SERIES 58: GROUNDWATER PROTECTION REGULATIONS

1. Section 47-58-2. Definitions

Some additional terms, which appear throughout the proposed groundwater regulations but are not defined, should be defined in this section of the proposed groundwater rules. At a minimum:

The term "contaminants" should be defined to exclude specific constituents present in raw materials and low toxicity, nonhazardous wastes, including wastewaters.

The term "innocuous" should be defined to include all low toxicity, nonhazardous wastes, including wastewaters.

The term "substantive change" should be limited to activities or operational modifications that are likely to have a negative impact on a usable groundwater source.

a. Section 47-58-2.6. "Naturally Occurring Substance"

Weirton recommends that the "naturally occurring substance" definition be expanded to include other naturally occurring substances that are commonly managed at steelmaking facilities (e.g., limestone, iron ore), including all raw materials. In addition, the scope of the term "naturally occurring substance" should be expanded to include low toxicity, nonhazardous wastes (e.g., slag) that currently are, or in the future may be, reused, recycled or recovered by the generating industry or by another industry.

2. Section 47-58-5. Groundwater Protection Practices For Industrial Establishments

As discussed above, Weirton believes that the Division should first focus on identifying the quality of groundwaters throughout the State and the existing and potential uses for groundwaters throughout the State. Second, the Division should establish specific groundwater standards for each designated use. Groundwater protection practices should be proposed and promulgated only after the Division obtains a clear picture of the quality of groundwaters throughout West

Virginia, and groundwater protection practices should only apply in areas of the State where groundwater has been identified as a significant, usable resource.

Protection practices for all activities that have the potential to contaminate groundwater, such as agricultural, municipal and/or recreational activities, should also be proposed and promulgated. The majority of industrial facilities have a lesser potential to contaminate groundwater than these other sources. In addition, the groundwater protection practices for industrial establishments should be modeled after the criteria at Section 47-58-6 of the proposed groundwater rules, which apply to facilities that generate electric power.

In general, regardless of the type of activity or facility, any requirement to install a groundwater monitoring well(s) and/or conduct groundwater remediation should be based upon proven risk assessment techniques applied on a case-by-case basis rather than by applying the most stringent set of criteria in all cases. Existing and potential groundwater uses and quality must also be evaluated to properly document the need for and goals of any forced remediation program.

a. Section 47-58-5.2. Outside Material Storage Areas
(Coal, Raw Materials, etc.)

Groundwater monitoring wells should not be required for outside material storage areas managing "naturally occurring substances," as well as any other raw materials or low toxicity nonhazardous wastes, unless the agency can demonstrate that: (1) there is an imminent threat of harm to human health and the environment outside of the facility property boundary; and (2) there are no existing groundwater monitoring wells onsite that can be used to provide samples representative of groundwater conditions within the facility property boundary.

b. Section 47-58-5.3. Loading and Unloading

Because non-liquid materials, including wastes, can be readily contained and cleaned up and, therefore, do not pose a threat to groundwater quality, spill prevention and control facilities and procedures for loading and unloading operations should only apply to the management of liquids.

c. Section 47-58-5.4. Wastewater Impoundments
(Holding, Storage, Equalization, Treatment, etc.)

Wastewater impoundments should be evaluated under the comprehensive groundwater protection plan process as described at Section 47-58-6.2 of the proposed rules, which is applicable to facilities that generate electric power. In addition, groundwater monitoring wells should not be required for wastewater impoundments, unless the agency can demonstrate that: (1) there is an imminent threat of harm to human health and the environment outside of the facility property boundary; and (2) there are no existing groundwater monitoring wells onsite that can be used to provide samples representative of groundwater conditions within the facility property boundary.

d. Section 47-58-5.5. Best Management Practices ("BMP") Plans

The proposed requirements at Section 47-58-5.5 should be substantially revised to be consistent with the BMP Plan requirements proposed at Section 47-58-6.2, which apply to facilities that generate electric power. At a

minimum, the BMP Plan requirements should only address groundwater. The reference to surface water should be deleted. Because the regulated community is already required to follow the State BMP Plan for construction activities, references to these activities should be deleted from this Section of the proposed groundwater protection rules. In addition, the BMP Plan for groundwater protection should not address equipment cleaning and maintenance activities that are conducted inside buildings because such activities are unlikely to affect groundwater quality.

e. Section 47-58-5.6.

In order to ensure consistency throughout each industry and among different industries in West Virginia, we recommend that site-specific groundwater protection plan requirements be listed in each industrial establishment's water permit and triggered at the time of permit renewal. However, this should be done after the Division has promulgated groundwater uses and standards.

f. Section 47-58-5.7. Implementation Schedule

As discussed above, in order to ensure consistency throughout each industry and among different industries in West Virginia, we recommend that the implementation schedule for site-specific groundwater protection plan requirements be included in the industrial establishment's water permit at the time of reissuance. This would give the Division and the permittee an opportunity to exchange information regarding the need for groundwater protection and how it can best be implemented.

g. Section 47-58-5.8. Impoundment Closure Requirements

i. Section 47-58-5.8.1.

Consistent with the provision at Section 47-58-6.3.2, which applies to facilities that generate electric power, and in an attempt to advance pollution prevention initiatives, the regulations should provide that:

All solids, sludges, etc. should be properly disposed of ~~in a landfill~~ or reused in accordance with the Solid Waste Management Regulations.

ii. Section 47-58-5.8.2.

The term "innocuous" should be specifically defined at Section 47-58-2 to include all low toxicity, nonhazardous wastes, including wastewaters.

iii. Section 47-58-5.8.3.

Consistent with the provision at Section 47-58-6.3.4, which applies to facilities that generate electric power, the regulations should provide that:

Impoundments should be filled in, graded and leveled to the maximum extent possible including, where practicable, filling with soils or other material approved by the director, capped if the director determines necessary, and vegetated.

iv. Section 47-58-5.8.4.

As previously discussed, groundwater monitoring requirements should not be triggered until the Division has classified groundwaters throughout the State by use and developed groundwater standards for each use designation. Once all of these standards are in place, assuming groundwater monitoring is required, groundwater monitoring should not continue beyond such time as the industrial establishment can demonstrate with analyses from a maximum of four sampling events over a one-year period that groundwater quality has not degraded over such period. A statistical method should be used for determining whether degradation has occurred.

h. Section 47-58-5.9. Site Selection Criteria

The relocation of operations from shallow groundwater zones or karst areas within industrial establishments should only be required if such relocation is economically practicable and there is an imminent threat of harm to human health and/or the environment.

i. Section 47-58-5.10. Pipelines and Pumps

i. Section 47-58-5.10.2.

Pipelines managing sanitary wastewaters and/or innocuous process wastewaters should not be subject to the leak detection and secondary containment requirements. In addition, these requirements should not apply to new pipeline that is excluded from regulation under the underground storage tank program of the U.S. Environmental Protection Agency ("federal EPA") at 40 C.F.R. Part 280.

ii. Section 47-58-5.10.3.

Industrial establishments should be afforded an opportunity to use unlined ditches as primary conveyances when such ditches manage inert and innocuous wastewaters.

j. Section 47-58-5.11. Sumps and Tanks

i. Section 47-58-5.11.1.

Consistent with the provision at Section 47-58-6.6.1, which applies to facilities that generate electric power, an industrial establishment should be able to implement a manual inspection program (e.g., every forty-eight hours), in lieu of installing a leak detection system, for sumps and tanks that are installed above ground.

ii. Section 47-58-5.11.2.

The list of concerns that would favor the installation of sumps and tanks underground should be expanded to include aboveground space limitation concerns.

k. Section 47-58-5.12. Diking and Spill Containment

i. Section 47-58-5.12.1.

The term "contaminants" should be specifically defined at Section 47-58-2 to exclude constituents present in raw materials and low toxicity, nonhazardous wastes, including wastewaters.

ii. Section 47-58-5.12.2.

The language "appropriate to" should be changed to "commensurate with."

3. Section 47-58-6. Criteria Applicable to Facilities
Who Generate Electric Power

As previously discussed, many West Virginia companies, including Weirton, own and operate their own power plants. Under the proposed groundwater regulations, Weirton would have to comply with the groundwater protection practices at Section 47-58-6 and the groundwater protection practices at Section 47-58-5, which apply to industrial establishments. As discussed above in the comments on the groundwater protection standards for industrial establishments, many of the standards for facilities that generate electric power are quite different than the standards for industrial establishments. Weirton believes that, instead of the standards proposed for industrial establishments, many of the standards proposed for facilities that generate electric power should apply to other industries as well, including the steel industry.

a. Section 47-58-6.1. Outside Material Storage Areas
(Coal, Raw Materials, Loading, Unloading, etc.)

Groundwater monitoring wells should not be required for outside material storage areas managing "naturally occurring substances," as well as any other raw materials or low toxicity, nonhazardous wastes, unless the agency can demonstrate that: (1) there is an imminent threat of harm to human health and the environment outside of the facility property boundary; and (2) there are no existing groundwater monitoring wells onsite that can be used to provide representative samples of groundwater conditions within the facility property boundary.

i. Section 47-58-6.1.2. Wastewater Impoundments (Holding,
Storage, Equalization, Treatment, etc.)

Groundwater monitoring wells should not be required for wastewater impoundments, unless the agency can demonstrate that: (1) there is an imminent threat of harm to human health and the environment outside of the facility property boundary; and (2) there are no existing groundwater monitoring wells onsite that can be used to provide samples representative of groundwater conditions within the facility property boundary.

b. Section 47-58-6.2. Groundwater Protection Plan

i. Section 47-58-6.2.2.

Because the regulated community is already required to follow the State BMP Plan for construction activities, references to these activities should be deleted from this Section of the proposed groundwater protection rules. In addition, the BMP Plan for groundwater protection should not address equipment cleaning and maintenance activities that are conducted inside buildings because such activities are unlikely to affect groundwater quality.

ii. Section 47-58-6.2.3.

In order to ensure consistency from facility to facility in West Virginia, we recommend that the comprehensive groundwater protection plan requirements be listed in each facility's water permit and be triggered through the Division's existing water permitting programs at the time of permit renewal. However, this should be done after the Division has promulgated groundwater uses and standards. This would give the Division and the permittee an opportunity to exchange information regarding the need for groundwater protection and how it can best be implemented.

c. Section 47-58-6.3. Impoundment Closure Requirements

i. Section 47-58-6.3.5.

As previously discussed, groundwater monitoring requirements should not be triggered until the Division has classified groundwaters by use throughout the State and developed groundwater standards for each use designation. Once all of these standards are in place, assuming groundwater monitoring is required, groundwater monitoring should not continue beyond such time as the facility can demonstrate with analyses from a maximum of four sampling events over a one-year period that groundwater quality has not degraded over such period. A statistical method should be used for determining whether degradation has occurred.

d. Section 47-58-6.5. Pipelines and Pumps

i. Section 47-58-6.5.2.

Pipelines containing sanitary wastewaters and/or innocuous process wastewaters should not be subject to the leak detection and secondary containment requirements. In addition, these requirements should not apply to new pipeline that is excluded from regulation under the federal EPA's underground storage tank program at 40 C.F.R. Part 280.

4. Section 47-58-8. Criteria Applicable to New Facilities or New Activities Not Specified in Sections 5, 6, 7, 14, or 15

As discussed above, Weirton believes that the Division should first focus on identifying the quality of groundwaters throughout the State and the existing and potential uses for such groundwaters. Second, the Division should establish specific groundwater standards for each designated use. Groundwater protection

practices for new facilities or new activities should be proposed and promulgated only after the Division obtains a clear picture of the quality, as well as existing and potential uses, of groundwaters throughout West Virginia. Groundwater protection practices should apply only in areas of the State where groundwater has been identified as a significant, usable resource.

Further, regardless of the type of activity or facility, any requirement to install a groundwater monitoring well(s) and/or conduct groundwater remediation should be based upon proven risk assessment techniques applied on a case-by-case basis rather than by applying the most stringent set of criteria in all cases.

a. Section 47-58-8.1.

A groundwater monitoring well(s) should not be required if an existing well(s) on the facility property can provide samples that would be representative of background groundwater quality. In addition, any requirement to install a groundwater monitoring well(s) should be based upon a review of the results of a thorough site-specific risk assessment.

i. Section 47-58-8.1.3.

Weirton recommends that the "naturally occurring substance" definition at Section 47-58-2.6 of the proposed groundwater protection rules be expanded to include other naturally occurring substances that are commonly managed at steelmaking facilities (e.g., limestone, iron ore), including all raw materials. In addition, the scope of the term "naturally occurring substance" should be expanded to include low toxicity, nonhazardous wastes (e.g., slag) that currently are, or in the future may be, reused, recycled or recovered by the generating industry or by another industry.

ii. Section 47-58-8.1.4.

A facility should be exempt from any requirement to employ runoff and infiltration control systems for the bulk storage of naturally occurring substances unless the Director determines otherwise. Such systems should only be required on a case-by-case basis after a full evaluation of the existing and potential uses of the potentially affected groundwater.

b. Section 47-58-8.2. Pipelines and Pumps

Pipelines containing sanitary wastewaters and/or innocuous process wastewaters should not be subject to the leak detection and secondary containment requirements. In addition, these requirements should not apply to new pipeline that is excluded from regulation under the federal EPA's underground storage tank program at 40 C.F.R. Part 280.

c. Section 47-58-8.3. Sumps and Tanks

The groundwater protection requirements for underground storage tank regulated sumps and tanks should be no more stringent than the federal EPA's underground storage tank standards at 40 C.F.R. Part 280.

5. Section 47-58-9. Criteria Applicable to Existing Facilities or Existing Activities Not Specified in Sections 5, 6, 7, 14, or 15

a. Section 47-58-9.1.

The requirements at Section 47-58-8 should only apply to existing facilities or activities if a "substantive" change in activities or a "substantive" operational modification is planned. A change in activities or an operational modification should be defined as "substantive" if it is likely to have a negative impact on a usable groundwater source.

b. Section 47-58-9.2.

In some cases (e.g., where the groundwater is not usable), an existing facility or activity that is contaminating groundwater should be permitted to continue operating, provided the facility can show that its operations are not contributing to the further degradation of the groundwater.

6. Section 47-58-11. Impoundment Closure Requirements Not Specified in Sections 5, 6, 7, 14, or 15

a. Section 47-58-11.2.

The term "innocuous" should be specifically defined at Section 47-58-2 to include all low toxicity, nonhazardous wastes, including wastewaters.

b. Section 47-58-11.4.

As previously discussed, groundwater monitoring requirements should not be triggered until the Division has classified groundwaters by use throughout the State and developed standards for each use designation. Once all of these standards are in place, assuming groundwater monitoring is required, groundwater monitoring should not continue beyond such time as the industrial establishment can demonstrate with analyses from a maximum of four sampling events over a one-year period that groundwater quality has not degraded over such period. A statistical method should be used for determining whether degradation has occurred.

7. Section 47-58-13. Remediation

a. Section 47-58-13.1.

i. Section 47-58-13.1.3.

As discussed above, groundwater monitoring requirements should not be triggered until the Division has classified groundwaters by use throughout the State and developed groundwater standards for each use designation. Once all of these standards are in place, assuming groundwater monitoring is required, the parameters specified by the Director for monitoring during the remedial operation must be selected based on information collected regarding historic and current activities conducted at the site of the cleanup and limited to relevant properties and constituents that are reasonably expected to be present.

Further, Weirton has the following specific comments on portions of the proposed penalty rules:

TITLE 47, SERIES 56: ASSESSMENT OF CIVIL ADMINISTRATIVE PENALTIES

1. Section 47-56-2. Definitions

a. Section 47-56-2.7. "Notice of Dismissal"

A "Notice of Dismissal" should be characterized as constituting a dismissal "with prejudice."

2. Section 47-56-5. Hearings and Appeals

a. Section 47-56-5.1. Right to Informal Hearing

If an informal hearing is waived, consistent with the provision at Section 47-56-5.6, the regulations should provide that:

The assessment officer shall establish a schedule for payment of the administrative penalty based on all relevant factors highlighted in writing to the assessment officer prior to the expiration of the thirty-day period from the violator's receipt of the notice of civil administrative penalty.

b. Section 47-56-5.4. Written Decision

Any written decision dismissing the initial civil administrative penalty assessment should constitute a dismissal "with prejudice."

c. Section 47-56-5.5. Request for Formal Hearing

The thirty calendar day period for requesting a formal hearing should run from the violator's receipt of the written decision.

3. Section 47-56-6. Individual Civil Administrative Penalties

In general, Weirton believes that Section 47-56-6 of the proposed penalty rules should be deleted in its entirety. Civil administrative penalties should be imposed on individuals only in the most extreme circumstances. To the extent a civil penalty is imposed, the penalty should be determined on a case-by-case basis based upon specific facts. Inflexible formulas should not be used.

a. Section 47-56-6.4.

To the extent the rules contain an individual civil administrative penalty provision, if an informal hearing is waived, consistent with the provision at Section 47-56-5.6, the regulations should provide that:

The assessment officer shall establish a schedule for payment of the administrative penalty based on all relevant factors highlighted in writing to the assessment officer prior to the expiration of the thirty-day period from the individual's receipt of the notice of individual civil administrative penalty.

4. **Section 47-56-7. Civil Administrative Penalty Calculation Procedures**

Weirton believes that Section 47-56-7 of the proposed penalty rules should be deleted in its entirety. A rigid civil penalty formula is not appropriate for complex groundwater enforcement cases because these types of cases are best handled on a case-by-case basis. Further, in light of the breadth of the factors contained in the proposed penalty rules, Weirton believes that implementation of the rules will lead to the inequitable treatment of industrial facilities in West Virginia.

CONCLUSION

In light of the absence of water quality classifications and standards for the groundwaters of West Virginia, Weirton recommends that the Division delay the promulgation of its proposed groundwater protection rules and first concentrate on classifying groundwaters throughout the State and developing groundwater standards for each type of use. Once these use classifications and groundwater standards are in place, we recommend that the Division repropose amended groundwater protection rules that, at a minimum, address our comments. Further, we recommend the reproposal or promulgation of the proposed penalty rules once they have been revised to address our comments.

Weirton appreciates the opportunity to comment on the proposed groundwater protection rules and the proposed penalty rules and requests that the Division give these comments full consideration in the process of reproposing revised regulations and/or promulgating final regulations.

Sincerely,



Gene P. Current
Manager, Environmental Control

Laidley Eli McCoy, Chief
Attn: Patrick Campbell
July 28, 1992
Page 13

bcc: Mark Vignovic
Dean A. Calland, Esquire
Colleen Grace Donofrio, Esquire

Appalachian Power Company
PO Box 2021
Roanoke, VA 24022-2121
703 985 2300

RECEIVED

JUL 29 1992

Water Resources
Division



OVERNIGHT

L. Eli McCoy, Ph.D., Chief
West Virginia Division
of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, West Virginia 25311

July 28, 1992

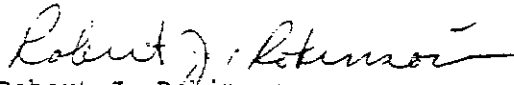
Dear Dr. McCoy:

Attached please find a document entitled, Comments on Proposed Title 47 Legislative Rules, Division of Natural Resources, Department of Commerce, Labor and Environmental Resources, Series 58 Groundwater Protection Regulations, Appalachian Power Company, July 28, 1992. This document constitutes the comments of Appalachian Power Company on the subject regulation.

We appreciate this opportunity to offer these comments and will be happy to either expand on the issues raised or provide any additional information that you may need in this matter.

If you have any questions, please feel free to contact our office.

Sincerely,


Robert J. Robinson
Environmental Affairs Director

RJR:d
Attachment

COMMENTS ON PROPOSED
TITLE 47 LEGISLATIVE RULES

DIVISION OF NATURAL RESOURCES
DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES

SERIES 58
GROUNDWATER PROTECTION REGULATIONS

APPALACHIAN POWER COMPANY
JULY 28, 1992

1. Section 2.3, - Definition of "Impoundment" - This definition includes any area that will hold an accumulation of any liquid substance that could impact groundwater. The term "impoundment" is then used throughout the regulation and carries requirements for specific actions (e.g., Sections 5.8, 6.3, etc.). While there is a strong indication that the specific references to "impoundments" in the regulation really mean wastewater impoundments, the original definition does not convey this meaning and, in fact, the Division probably does not intend to restrict the protection of groundwater to only wastewater areas. However, the definition is extremely broad and could be interpreted to apply to farm ponds and even swimming pools. The definition should be modified by inserting the word "negatively" before the words "impact groundwater" at the end of the definition. This would bring the definition into accord with other parts of this regulation, which specifically regulate activities that have a deleterious impact on groundwater.

2. Section 4.1, - Competing Regulations - This section recognizes that there are a number of other regulations in the state that have groundwater protection practices as

part of their requirements. This section goes on to state that in cases of conflict, "...the rule most protective of groundwater shall apply." First, the Company suggests that determining which of two rules is "most protective of groundwater" may be an extremely difficult task and could conceivably result in numerous court actions to establish standards or criteria for the determination of degrees of protection. Second, the Company submits that many of the requirements to be found in existing regulations are the result of study, scientific evaluation, and public input and should not be automatically superceded in a wholesale fashion by the regulation currently under consideration. The Company feels that, in those cases wherein facilities are subject to specific regulatory requirements that apply because of the nature of the facility (such as those facilities subject to the West Virginia Solid Waste Regulations or those installations covered under the Underground Storage Tank Program), the facility specific regulations should apply in all cases. Should the agencies determine that there is a need to further regulate an activity to bring such facilities into accord with the currently proposed regulation, then the appropriate rule should be specifically modified, with full opportunity for public review and comment. The Company feels that it was

the intent of the Legislature to preserve existing programs in the manner discussed above and it was for this reason that Section 2.(a)(9) was included in the State Groundwater Protection Act. This section states, "Disruption of existing state regulatory programs should be avoided to the maximum extent practical." We suggest that Section 4.1 of the proposed regulation be rewritten as follows:

"Recognizing that in certain cases, existing regulations impose requirements that are more or less restrictive than the requirements of this rule, in the event that this rule conflicts with another applicable rule, the existing rule will apply. The Director may, at his discretion, begin formal regulatory process to remove the conflict between the regulations.

3. Section 6: Applicability of Regulation to Facilities Who Generate Electric Power - This section sets out the specific groundwater protection practices that must be instituted at facilities that generate electric power. This section differs in some instances from Section 5 which deals with General Industrial Facilities and recognizes that electric power plants are in many ways different from

manufacturing plants and present in some areas unique circumstances. The Company would like to point out that the type of facility contemplated in this section is actually what is more properly identified in the U.S. EPA NPDES Guidelines as "Steam Electric Generating Plants." However, the term as presented in the proposed regulation would also apply to hydroelectric facilities which, by their very nature, present a negligible potential for negative impact on the groundwater resource. In general, hydroelectric generating facilities have little or no outside storage areas, no bulk storage areas, no wastewater treatment facilities, and do not use on-site landfills for the disposal of solid waste. The Company submits that the potential for groundwater impacts from these facilities is small enough to warrant exclusion from coverage under this section. These particular installations would more properly be covered under Section 10 of the proposed regulation that allows the Director to require the commencement of groundwater protection measures should he or she decide such action is necessary. The Company suggests that the title of Section 6 be changed by adding the parenthetical expression "(excluding hydroelectric facilities)" to the end of the title.

4. Section 6.1.1.b, - Construction of New Storage Areas -

In this section and in several other places in the proposed regulation, the requirement is specified that certain facilities be constructed to "prevent" the release of contaminants to groundwater. The Company submits that the term "prevent" connotes a responsibility to erect an absolute barrier to any possibility of the entrance of a contaminant in any quantity to the groundwater. That this is an impossibility is well understood by the technical community, but may be misconstrued by the general public. The Company suggests that the term "prevent" should be replaced by the phrase "minimized to the extent technically feasible and economically practical." We note that this language is employed in the Groundwater Protection Act and suggest that this concept would be appropriately carried over into the regulation.

5. Section 6.3.6, - Closing Out of Impoundments - This section requires that, if an impoundment is closed out due to a problem, then an "impermeable" cap must be placed on the area when filling is complete. The term "impermeable" represents a degree of construction not readily achievable in reality. Rather than use this term, the regulation should be rewritten to cite specific criteria.

6. Section 6.5, - Installation of Underground Pipes -

This section states that all pipelines shall be preferentially located above ground and goes on to require secondary containment and leak detection for all underground piping with the exception of several named categories. First, it is unclear whether this section is to be applied retroactively to all existing pipelines or applies only to pipelines being "installed" in the future. Second, if this does only apply to new installations, clarification is needed regarding its application to parts of existing pipelines if repairs are made to sections but not to the entire line. Third, although the list of exemptions is somewhat indeterminate, it does appear as if the proposed regulation is intended to be applied to a large universe of pipelines. The Company feels that requiring secondary containment and leak detection for all pipelines, unless specifically or categorically excluded, would result in over protection and potentially astronomical costs. Many types of pipelines that are not discussed in Section 6.5.2 present little or no threat to groundwater. For instance, there is nothing in this rule that would restrict its application to pipelines carrying liquids, thus lines carrying materials in a gaseous or

powered state could be required to meet these requirements. Also, in Section 5.10.2 (and assuming that there is a typographical error in Section 6.5.2), the exemption from this requirement is restricted to uncontaminated stormwater. This would require that any place in which storm drains have been routed to a wastewater treatment plant due to minor contamination, these drains would have to be outfitted with leak detection and secondary containment. The Company knows of no other regulatory process that has attempted to impose this type of restriction and feels that it is not justified.

The Company submits that the question of containment and leak detection for stormwater lines is only an example of the problems and over-regulation that can result from the extremely broad coverage in this section of the proposed regulation. The Company strongly urges the Division to revise this section to require such protection only in narrow, well-defined cases or to require anyone preparing a groundwater protection plan to make an assessment of all underground pipelines (including planned pipelines) and, where necessary, due to a potential threat to the quality of the groundwater, install protection devices.

7. Section 6.6.1, - Requirement that Tanks, Reservoirs and Basins have Secondary Containment - This section apparently requires that any tank or vessel of any description must have secondary containment. There is no mention made or consideration given to whether or not the vessel even contains a material that could have a negative impact on groundwater. Even though it sounds unreasonable, this requirement would mandate secondary containment for potable water storage tanks. It would also require protective measures for dry materials if stored in a vessel and could even be interpreted to encompass storage and reaction vessels located entirely inside a building, as the definition of secondary containment in the proposed regulation carries the sense of encompassing only those devices specifically installed to prevent spills. This may preclude a building being considered to be secondary containment. As in the discussion on underground pipelines, the Company submits that the coverage intended in this proposal is entirely too broad and seems to attempt to regulate all activities whether or not there is a reasonable potential for negative groundwater impact. There is also no size limitation regarding the vessels to be regulated so that even a container holding a few gallons of a substance would be required to have containment.

In discussions with the Water Resources Section, Company representatives have discussed the coverage of the Federal SPCC Program as an example of regulations that prevent the pollution of natural resources due to stored material. We note that the SPCC program does not regulate any tank under 660 gallons or unless the total facility has an aggregate volume of 1,320 gallons. The SPCC regulations also do not require secondary containment in all circumstances and only apply to substances known to have a potential for contamination. We feel that the state should, at a minimum, follow the federal example in this area.

The Company suggests, however, that a more equitable solution would be to rewrite this section to require that all tanks, reservoirs and basins be surveyed to determine if there is a reasonable potential for negative groundwater impact. Should a potential for impact be determined, then the groundwater protection plan should require either secondary containment or strong countermeasures plan.

The Company also notes that the section under question requires that all secondary containment be "impervious." This is an imprecise term, but seems to imply that the

containment would contain any liquid introduced without allowing the first molecule of penetration. The currently proposed federal SPCC regulation is attempting to address this same question and has proposed that any secondary containment must be impervious to penetration by oil for 72 hours. This is a much less stringent requirement than the proposal in this section but is intended to address those situations wherein a tank is not inspected for a time period equal to a weekend plus a Monday holiday. The current West Virginia proposal already imposes an inspection requirement of 48 hours as an alternative to leak detection installation so even the EPA proposed standard would not be necessary in this case. The Company suggests that a requirement for an impervious containment is, in fact, unnecessary and subject to broad interpretation and should be deleted.

8. Section 6.6.2, - Requirement for Compliance with Underground Storage Tank Regulations - This section requires that the facility comply with the UST Regulations. As the UST Regulations already contain compliance requirements, this section is unnecessary. The inclusion of this section in this regulation also raises a question of double jeopardy. This section should be deleted.

9. Section 6.7.1, - Remediation Requirements for Electric Power Plants - This section simply states that electric power facilities are subject to the same remediation requirements as other facilities. There is nothing in the rest of the regulation to imply that electric power facilities would be exempt from remediation, therefore, it appears that this section is unnecessary. For the sake of clarity, the Company suggests that this section be deleted.

10. Section 8.1.3, - Secondary Containment for Non-Specified Facilities - This section imposes the same requirements discussed in Item 7 above but extends these requirements to all new processes or activities not located at a facility already regulated. This section can be read to require that any tank, container, vessel, etc., regardless of size or location, must have secondary containment. This section also fails to limit this coverage to vessels that could negatively impact groundwater quality. As discussed above, this section is too broad and needs to be refined so that it only applies to a situation that has a reasonable potential to impact negatively on the resource. As presently written, this section would apply to automobile gas tanks, in-service

electrical equipment (such as small pole-mounted transformers), and other small tanks that would pose little or no potential negative impact. This section should be refined to limit its scope.

11. General Comment

The Company is concerned that the proposed regulations frequently incorporate strict design standards rather than operational management as a means of preventing groundwater contamination. The Groundwater Protection Act requires regulatory agencies to develop groundwater protection practices to prevent groundwater contamination that include, but are not limited to, facility design, operational management, closure, remediation and monitoring. In many cases, as described in our above comments, strict design requirements have been applied for pipelines, tanks, impoundments, etc., without regard for size and little regard for the actual materials or liquid being held or transported. Operational requirements, such as routine inspections, housekeeping, maintenance, testing and provisions for immediate cleanup, should be a significant part of the groundwater protection plan. These operational practices are especially relevant for "low-risk" activities such as small containers or

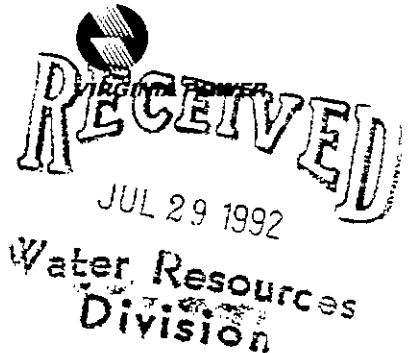
impoundments containing non-hazardous materials or liquids for which secondary containment is extremely expensive and unjustified. The Company urges the DNR to include broader use of operational management, especially for small low-risk facilities or portions of larger facilities.

CONCLUSION

Appalachian Power Company appreciates the opportunity to comment on these proposed regulations. The Company has worked with the DNR and others throughout this process and looks forward to continued participation in ensuring the protection of West Virginia groundwater in a reasonable and beneficial manner. The Company stands ready to offer any additional assistance that may be needed.

July 27, 1992

Dr. Eli McCoy, Chief
Department of Natural Resources
Waste Resources Section
1201 Greenbrier Street
Charleston, WV 25311
ATTN: Patrick Campbell



RE: PROPOSED GROUNDWATER PROTECTION REGULATIONS - COMMENTS

Dear Dr. McCoy:

Virginia Power appreciates the opportunity to comment on the proposed Groundwater Protection Regulations. The company operates Mt. Storm Power Station, in Grant County, a coal-fired electric power generating facility. Our comments are:

- 1) Section 2.3 - The definition of the term "Impoundment" is somewhat broad and could be interpreted to apply to flood control dams, farm ponds, etc. We recommend inserting the word "negatively" before the words "impact groundwater" in order to make the definition consistent with other parts of the regulation that refer to activities that may have an adverse impact on groundwater.
- 2) Section 4.1 - Section 4.1 recognizes the existence of other regulations in the state that have provisions for groundwater protection. The section states that "... the rule most protective of groundwater shall apply." We suggest that interpretation of which of two (or more) rules would be "most protective" may be difficult and open to broad differences in interpretation resulting in court actions and delays. Additionally, we believe that many of the requirements in existing regulations are the result of research, studies, scientific evaluation, and public input and, therefore, should not be automatically superceded by the regulation currently under consideration. We recommend that in those cases where facilities are subject to specific regulatory requirements that apply because of the nature of the facility (e.g. facilities subject to the WV Solid Waste Regulation or the Underground Storage Tank Program) the existing regulations should prevail. Should the Agencies determine that there is a need to further regulate an activity so covered, then the appropriate rule should be specifically modified with full opportunity for public review and comment.

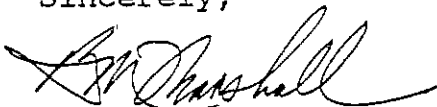
- 3) Section 6.1.1.b - The term "prevent" as used in Section 6.1.1.b could imply a responsibility to erect an absolute barrier to any possibility of groundwater contamination. The technical community realizes that an absolute barrier is impossible to achieve; however, that concept could be misconstrued by the general public. Therefore, we recommend that the term "prevent" be replaced with "minimized to the extent technically and economically practicable." Such language is found in the Groundwater Protection Act and we feel that it would be appropriate to carry the concept into the regulation.

The statement in Section 6.1.1.b that groundwater monitoring wells may be necessary to assure protection should either be deleted or added to Section 5.2.2 to provide equitable treatment for power generating facilities and the industrial facilities. While we agree that some aspects of electric power generation are unique from other industries, the issue of material storage design should be consistent.

- 4) Section 6.2.3.a - We feel that the regulations should provide lead time following promulgation of the regulations and prior to the beginning of the assessment survey. Activities such as writing a scope of work, contracting, and planning must precede the start of the actual assessment survey and time should be allowed for those activities. We believe 90 days would be an appropriate lead time.
- 5) Section 6.4 - "Shallow" should be defined either quantitatively or qualitatively. As written, the regulation leaves room for wide interpretation of "shallow."
- 6) Sections 6.5, 6.6 and 8.1 - As a general comment, the requirements for various groundwater protection devices (e.g. secondary containment, leak detection) should allow for more flexibility in designating applicable facilities. These requirements should only apply to facilities or structures that pose a potential adverse impact to the quality of the groundwater. Without such qualification in the regulatory language, there would be unnecessary and burdensome regulatory requirements with no environmental benefits.

Please contact Wes Sprouse at (804)273-3552 if you have any questions or if we may be of assistance.

Sincerely,



B. M. Marshall, P.E.
Manager
Water Quality

/jmh

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-6097

July 28, 1992

Laidley Eli McCoy, Chief
DNR, Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311
Attention: Patrick Campbell

Re: Proposed Groundwater Protection Regulations by the
West Virginia Department of Commerce, Labor, and
Environmental Resources Division of Natural Resources

Dear Mr. Campbell:

Baker Environmental, Inc. (Baker) has reviewed the documents for the proposed rule concerning Groundwater Protection Regulations that were distributed by the West Virginia Division of Natural Resources (WV DNR) to solicit comments. This letter conveys our written comments on the proposed rule. The letter first provides our overall reaction to the proposed rule in a general fashion and then comments on specific sections of the proposed rule.

GENERAL

Baker agrees with WV DNR's stated objective of establishing groundwater protection practices. Groundwater is an important natural resource in the state of West Virginia, with over 50 percent of the population depending on it for drinking water. However, the rule is written in terms as general as the stated objective. References to applicable or relevant West Virginia regulations are ambiguous. Numerous terms are used that are not defined in the regulation or referenced to other existing regulations.

Overall, the regulation needs to more clearly define the following:

- Criteria to determine if a facility is subject to the regulations.
- Materials the agency consider contaminants. Whether contaminants are raw products, waste or both.
- Parameters to be evaluated in the groundwater assessment survey.

SECTION SPECIFIC COMMENTS

Explanation of Overall Economic Impact of Proposed Rule.

- A. Economic Impact on State Government. None.**
- B. Economic Impact on Citizens/Public at Large. None.**

Laidley Eli McCoy, Chief
July 28, 1992
Page 2

Comment: If review of the Best Management Practices Plans and Groundwater Protection Plans will be conducted by government employees, additional labor costs will be incurred. Additionally, government labor costs will be incurred to enforce the regulations. The additional government labor costs will add to the tax burden of the public at large.

Section 47-58-2. Definitions.

Subsection 2.6. "Naturally Occurring Substances" for the purpose of this regulation means raw or processed coal.

Comment: The proposed regulation limits "Naturally Occurring Substances" to raw or processed coal. What provisions will be made for other naturally occurring substances such as inorganic constituents and anthropogenic materials (e.g., PAHs)? How does the designation of "naturally occurring substances" impact the requirements of this proposed rule? Currently, there is no indication that any exclusions from the requirements exist for "naturally occurring substances". Guidance on determining whether levels of "naturally occurring substances" at a facility are within background range should be provided.

Section 47-58-5. Groundwater Protection Practices For Industrial Establishments.

Subsection 5.1. Industrial establishments owned and/or operated by a small business may be exempted from certain requirements of this section at the director's discretion.

Comment 1: Small business was previously defined as any facility or activity that has less than \$300,000.00 in gross receipts per annum. What is the rationale for exempting a facility based on their annual revenues. Why not base exemption of a facility, not on whether it is a "small business" or not, but on the amount of regulated material stored by the facility.

Comment 2: What "certain requirements of this section" can small businesses be exempted from?

Comment 3: What procedure(s) must be followed to obtain exemption at the director's discretion?

Section 47-58-5.

Subsection 5.2. Outside Material Storage Areas (Coal, Raw Materials, etc.)

Comment: "Raw materials" was not previously defined. To what raw materials does this apply? Is there a published list of chemicals, materials, products, wastes that this rule will apply to?

Laidley Eli McCoy, Chief
July 28, 1992
Page 3

Section 47-58-5.

Subsection 5.2.

Paragraph 5.2.1. "Existing areas shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring well may be necessary to perform this evaluation."

Comment: Why would placement of groundwater monitoring wells be necessary for evaluating the potential to release contaminants to the groundwater? "Potential" would seem to indicate the determination of future possibilities of releases while wells would identify past/historical events. Groundwater monitoring wells may identify existing groundwater contamination, but does not necessarily identify the source of that contamination. Contamination could be from a previous storage area in the same location or from a storage area in a different location whose plume has migrated to the current location. An alternative to this may be the utilization of fate and transport properties of the substances. For example, the partitioning potential of a substance between soil and water could be used to determine the time frame in which a substance would be expected to reach groundwater. This may be accomplished by modeling or utilization of TCLP results.

Section 47-58-5.

Subsection 5.2.

Paragraph 5.2.2. New areas shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems if necessary.

Comment: Rule is rather ambiguous and open to many interpretations. More detailed design specifications (e.g., required leak detection equipment, safety equipment, spill control equipment, materials of construction, etc.) should be developed for construction of new storage areas. This would standardize construction and could be applied fairly in all instances.

Section 47-58-5.

Subsection 5.3. Loading and Unloading.

Paragraph 5.3.2. Product distribution facilities and bulk containers shall be designed to prevent spills and leaks.

Comment: Rule is rather ambiguous and open to many interpretations. More detailed design specifications (see previous comment) should be developed for construction of new product distribution facilities and bulk containers. This would standardize construction and could be applied fairly in all instances.

Laidley Eli McCoy, Chief
July 28, 1992
Page 4

Section 47-58-5.

Subsection 5.4. Wastewater Impoundments (Holding, Storage, Equalization, Treatment, Etc.)

Paragraph 5.4.2. New impoundments shall be designed and operated to prevent release of contaminants to the groundwater, using liner systems. Groundwater monitoring wells will be placed, if there is a potential for groundwater contamination.

Comment: Rule is rather ambiguous and open to many interpretations. Also, a potential for groundwater contamination from a new impoundment seems unlikely if the system is designed and operated to prevent releases. Option should be available to use existing groundwater information or obtain background information through means other than well installation (e.g., Hydro-punch) at WVDNR's discretion.

Section 47-58-5.

Subsection 5.5. Best Management Practices (BMP) Plans

Comment: A schedule for a GPP has been provided. What is the schedule for the BMP Plans? Do these plans need to be reviewed and approved by the WVDNR.

Section 47-58-5.

Subsection 5.5. Best Management Practices (BMP) Plans

Paragraph 5.5.1. BMP plans shall address groundwater as well as surface water. Particular areas to be addressed regarding groundwater protection methods include:

- 5.5.1.a Outside manufacturing facilities;**
- 5.5.1.b Outside materials handling;**
- 5.5.1.c Equipment cleaning;**
- 5.5.1.d Construction activities; and,**
- 5.5.1.e Maintenance activities.**

Comment: These activities need to be better defined as to the types of and degree of outside manufacturing, materials handling, equipment cleaning, construction activities and maintenance activities that would require BMP plans. Which chemicals compounds or elements will require BMP plans?

Section 47-58-5.

Subsection 5.5. Best Management Practices (BMP) Plans

Paragraph 5.5.3.c. Equipment or structures installed to provide groundwater protection shall be inspected and maintained regularly for system integrity.

Comment: What is the definition of "regularly"? Are there any reporting or recordkeeping requirements of these inspections?

Laidley Eli McCoy, Chief
July 28, 1992
Page 5

Section 47-58-5.

Subsection 5.6. Each industrial establishment should have a comprehensive groundwater protection plan which covers all aspects of activities which could potentially contaminate groundwater. Each industrial establishment shall conduct a groundwater assessment survey and prepare a groundwater protection plan containing the following:

Comment: The proposed regulation requires a facility to conduct a groundwater assessment survey and prepare a groundwater protection plan (GPP). Guidance is provided for the development of the GPP. It appears from the description of the contents of a GPP that only existing data are needed. The facility is not required to conduct additional testing or monitoring for the plan. If this is the intent, it should be explicitly stated. No guidance is provided for conducting the groundwater assessment survey. Specific information required by the agency for this survey should be outlined. It should be noted if existing information is sufficient or if additional monitoring or testing is required. Does the survey need to address each substance that has the potential to reach groundwater or will the agency identify indicator chemicals. If groundwater is not used for a potable service, are conventional parameters that impact aesthetic properties of water important?

Section 47-58-5.

Subsection 5.6.

Paragraph 5.6.1 An inventory of all operations that may reasonably be expected to contaminate the groundwater resources and contain an indication of the potential for soil and groundwater contamination.

Comment: The term "Operations" needs to be defined. Does this only include operations noted in the proposed regulation (e.g., impoundments, storage areas, and loading and unloading areas) or does it include process/manufacturing.

Section 47-58-5.

Subsection 5.7. Implementation Schedule

Paragraph 5.7.3. Complete assessment survey and collection of information and begin drafting of Groundwater Protection Plan (GPP) within six months of promulgation of these regulations.

Comment: Will the GPP require review and approval by the WVDNR prior to implementation? If yes, does WVDNR have the manpower to review all GPP submitted simultaneously?

Section 47-58-5.

Subsection 5.8. Impoundment Closure Requirements

Paragraph 5.8.2. If in-place closure is to be performed, stabilize, if necessary, unless determined to be innocuous.

Comment: Innocuous by what standard. West Virginia regulation used to determine whether material is innocuous or not should be referenced here. Can determinations be made based on risk based assessment?

Laidley Eli McCoy, Chief
July 28, 1992
Page 6

Section 47-58-5.

Subsection 5.8. Impoundment Closure Requirements

Paragraph 5.8.3. Impoundments should be filled in, graded, capped, and vegetated.

Comment: What type of cap is required (i.e., clay, impervious, etc.).

Section 47-58-5.

Subsection 5.8. Impoundment Closure Requirements

Paragraph 5.8.4. At impoundments which were previously existing and where groundwater contamination had been determined to exist requiring remedial action with continuing groundwater monitoring, the groundwater monitoring must continue until results assure adequate remedial action was taken.

Comment: What determines "adequate remedial action" was taken? Is this accomplished by a comparison to naturally occurring background levels in groundwater, health based criteria, or to a West Virginia groundwater standard (if so, where does this standard appear?). Can standards be established based on risk based assessment?

Section 47-58-5.

Subsection 5.10. Pipelines and Pumps

Paragraph 5.10.2. On-site underground pipelines may only be installed if provided with leak detection and secondary containment measures, excluding sewer systems containing only sanitary wastewater, uncontaminated stormwater, raw water, condensate, etc.

Comment: What constitutes leak detection. Is this similar to leak detection in the UST regulations? There is no provision for corrosion protection of existing or new pipes in this proposed rule. Corrosion protection would significantly reduce the number of corrosion failures to steel pipes.

Requiring secondary containment on piping as described would be a significant financial burden in many industries. Also, it seems unnecessary for pipes containing many substances whose effect on human health and the environment are minimal or non-existent. The language in the proposed rule should be modified to list specific contaminants which require double-walled piping.

Section 47-58-5.

Subsection 5.11. Sumps and Tanks

Paragraph 5.11.1. Sumps and tanks installed above ground shall have a leak detection system and secondary containment.

Comment: What constitutes "leak detection" for sumps and tanks located above grade? Also, a minimum tank size should be established to be applicable to this requirement and specific materials should be established which would make the tank regulated.

Laidley Ell McCoy, Chief
July 28, 1992
Page 7

Section 47-58-5.

Subsection 5.11.

Paragraph 5.11.2. Sumps and tanks may only be installed underground for overriding safety, legal, security, and fire protection concerns.

Comment: Who determines these overriding safety, legal, security, and fire protection concerns? What procedure(s) must be followed to determine these overriding concerns?

Section 47-58-5.

Subsection 5.12. Diking and Spill Containment.

Paragraph 5.12.1. Secondary containment (compatible with and impervious to the contaminants being stored or handled) shall be provided for all above ground tanks and vessels containing contaminants.

Comment: A minimum tank size should be established to be applicable to this requirement (maybe 200 or 500 gallons). Also, what are the "contaminants" that are applicable to this requirement. A reference should be made to the list of materials/contaminants.

Section 47-58-6. Criteria Applicable To Facilities Who Generate Electric Power.

Subsection 6.1. Groundwater Protection Practices

Paragraph 6.1.1.a. Existing areas shall be evaluated for their potential to release contaminants to the groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring wells may be necessary to perform this evaluation.

Comment: See comment to Section 47-58-5., Subsection 5.2., Paragraph 5.2.1.

Section 47-58-6.

Subsection 6.2. Groundwater Protection Plan.

Paragraph 6.2.3.c. Complete assessment survey and collection of information and begin drafting of Groundwater Protection Plan (GPP) within six months of promulgation of these regulations.

Comment: See comment to Section 47-58-5, Subsection 5.7, Paragraph 5.7.3.

Section 47-58-6.

Subsection 6.3. Impoundment Closure Requirements

Paragraph 6.3.3. If in-place closure is to be performed, stabilize, if necessary, unless determined to be innocuous.

Comment: See comment to Section 47-58-5., Subsection 5.2., Paragraph 5.8.2.

Laidley Eli McCoy, Chief
July 28, 1992
Page 8

Section 47-58-6.**Subsection 6.6. Sumps And Tanks.**

Paragraph 6.6.1. Tanks, reservoirs, and basins installed above ground shall have impervious secondary containment. Such structures will also employ a leak detection system if located in an isolated area (i.e., not inspected by personnel at least every 48 hours).

Comment: There should be a minimum tank size established for applicability to this rule. Also, tanks, reservoirs, and basins requiring secondary containment should be limited to those which store "contaminants". A reference should be made to the West Virginia regulation that details the materials/contaminants applicable to this regulation.

Section 47-58-8. Criteria Applicable To New Facilities Or New Activities Not Specified in Section 5, 6, 7, 14, or 15.

Subsection 8.1. New facilities or activities which have the potential to impact groundwater quality, at the director's request, shall install and sample a sufficient number of groundwater monitoring wells, prior to facility or activity operation, to determine representative background groundwater quality for the areas of the site which will be developed/used/potentially impacted.

Comment: Appropriate design and construction requirements would eliminate new facilities being constructed which have the potential to impact groundwater. This would eliminate the need to install groundwater monitoring wells and monitor the groundwater until the director determines that the threat of contamination from the facility or activity has ceased. If background groundwater data prior to construction of new facilities is what the agency is interested in, this could be obtained through other means (e.g., existing information, Hydro-punch, etc.).

What mechanism is available to guarantee the director has an opportunity to request sampling before a facility is put into operation.

Section 47-58-8.**Subsection 8.1.**

Paragraph 8.1.3. Secondary containment is required for any process or storage activity, other than impoundments and bulk storage areas for naturally occurring substances, in which materials are stored, handled, or used that may impact groundwater quality.

Comment: Is this regardless of size? A minimum tank capacity should be established for applicability to this requirement. Also, more detail is necessary for determining those materials applicable to this requirement.

Section 47-58-9. Criteria Applicable To Existing Facilities Or Existing Activities Not Specified In Section 5, 6, 7, 14, and 15.

Subsection 9.1. Where it can be demonstrated to the director that existing facility or activity design is such that no groundwater contamination is occurring, continued verification will be the minimum requirement.

Baker

Laidley Eli McCoy, Chief
July 28, 1992
Page 9

Provided that if new construction occurs or if activities change they shall be done in a manner which complies with Section 8 above. Furthermore notification to the director must be made, in writing, 180 days prior to any operational modification.

Comment: What is required by continued verification? Is this verification through installation of groundwater monitoring wells, analysis of groundwater samples, visual inspection of storage areas, installation of leak detection devices? What are the recordkeeping and reporting requirements of continued verification? Details of the requirements of continued verification need to be presented so the facility can choose the method of continued verification that best suits it.

Section 47-58-10. Operational Management For Facilities Or Activities Not Specified in Sections 5, 6, 7, 14, or 15.

Subsection 10.1.

Paragraph 10.1.5. Determine if any portion of the facility or activity is located within a designated Wellhead Protection Area.

Comment: Reference needs to be made to regulation where Wellhead Protection Area information can be found.

Section 47-58-11. Impoundment Closure Requirements Not Specified In Sections 5, 6, 7, 14, or 15.

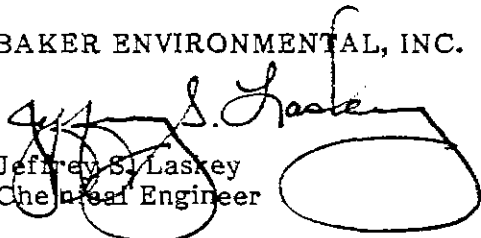
Subsection 11.2. If in place closure is to be performed, impoundment contents must be stabilized, unless determined innocuous.

Comment: See comment to Section 47-58-5., Subsection 5.2., Paragraph 5.8.2.

If you wish to discuss our comments/recommendations, please call me at (412) 269-6024. Also, please include me on any subsequent mailings associated with these rulemaking proceedings.

Very truly yours,

BAKER ENVIRONMENTAL, INC.


Jeffrey S. Laskey
Chief Engineer

JSL:dmc

Comments on:

TITLE 47 LEGISLATIVE RULES
DIVISION OF NATURAL RESOURCES
DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES

SERIES 58
GROUNDWATER PROTECTION REGULATIONS

There is a general lack of detail as to the practices that will be required for groundwater protection. Numerous times there is stated that a particular activity will have spill or contamination prevention procedures or facilities, but just what is required for these is not specified.

Examples where more detail should be included: 5.3. - Loading and Unloading; 5.4. - Wastewater Impoundments; BMP's ("appropriate provisions"/ "in a manner that protects groundwater"); Sumps and Tanks.

If there is a standardized body of spill prevention practices, contamination prevention practices, runoff and /or infiltration control systems, etc., they should be referenced. If there is not, then it should be the task of the regulatory agency to develop one.

Much of the language is vague to the point of rendering the regulations unenforceable. Words like "inspected regularly, maintained regularly, should, appropriate measures", etc. do not provide a firm basis for enforcement action.

**§ 47 - 58 - 5 Groundwater Protection Practices For
Industrial Establishments**

5.4.2. states that if there is a potential for groundwater contamination, groundwater monitoring wells will be placed around new impoundments. Who will determine if there is a potential and how will that determination be made without the information that monitoring wells would yield?

5.5.2. is too vague in the use of the word "should". The word "shall" is more clear.

5.5.3. is too vague in the use of the word "should". The word "shall" is more clear.

5.5.3.a. The sentence beginning with "Job procedures" is vague, it sounds too much like self regulation. These job procedures should be subject to review and approval.

5.5.3.c. uses the words "inspected and maintained regularly". An explanation of what "regularly" means is needed. The words "not less than quarterly" would be more clear, and consistent with the language in 5.5.3.b.

5.6. is too vague in the use of the word "should". The word "shall" is more clear.

5.6.5. Besides discussion of this information, provision should be added indicating that any information gathered will go into DNR data base and thus should be provided in the correct format for integration into this data base.

5.7.4. There should be requirements for review and approval of the plans to make sure that they comply with the intent of the Groundwater Protection Act. Groundwater certification is meaningless if the regulatory agency does not review the BMPs and the groundwater protection program.

5.8.2. There will most likely be many attempts to establish that various materials as innocuous. Who determines if the material is innocuous? What is the procedure for making this determination?

5.9. There is much more to consider in site selection. Refer to the siting criteria in the solid waste regulations (§47-38-3.1 and 3.2) for examples, such as distances from wells, streams, mining, highways, dwellings, faults, wetlands, etc.

5.10.2. Leak detection and secondary containment measures are not explained. If there is a standardized body of leak detection and secondary containment measures, they should be referenced. If there is not, then some standardized measures need to be formulated.

Also, just what is "sanitary wastewater", "uncontaminated stormwater", "raw water" and "condensate"? All condensates are going to be ^{EX}cluded? If exclusions are going to be based on such improbable concepts, they should be defined, and tied to a review and approval process.

5.11.2. Approval by the Chief should be included here.

5.12.3. Again, the language is too vague to enforce. Spell out some minimum requirements.

§ 47 - 58 - 6. Criteria Applicable To Facilities Who Generate Electric Power.

6.1.1.b. Runoff and/or infiltration control systems should be included in the minimum design, and not included in the "if necessary" category with liners.

6.1.2. Are coal combustion by-product surface impoundments included here? If so, these are completely inadequate. It is understood that the regulations which are more protective of groundwater are to be applied, and that would be the Title 47 Series 38 solid waste regulations in this case, but even in those, coal combustion by-product facilities are not subject to the same requirements as other solid waste facilities. Subsection (h) of Section 5 of the West Virginia Groundwater Protection Act states that Subsections (e), (f) and (g) of Section 5 of the West Virginia Groundwater Protection Act "shall not apply to coal extraction and earth disturbing activities directly involved in coal extraction...". It should be remembered that a coal combustion by-product facility is not a coal extraction activity or an earth disturbing activity directly involved in coal extraction. With this in mind, it is unclear why these facilities are regulated differently from other solid waste facilities. For example, 5.5.2.a.d. of the Title 47 Series 38 regulations would allow the use of an alternate liner design until it fails. This is inconsistent with the Groundwater Protection Act's basic policy of nondegradation. In 5.5.2.a.H. of the Title 47 Series 38 regulations, coal combustion by-product facilities are exempted from the provisions of Section 4.8.3.c.B., which are the liner requirements for surface impoundments. They are also not subject to any of the groundwater monitoring requirements of the Title 47 Series 38 regulations. This is an irresponsible approach. Without groundwater monitoring wells, how will it be known that these impoundments do not need to meet the same requirements that other solid waste facilities must meet? There are a lot of assumptions being made that should not be made in view of the nondegradation policy established by the groundwater protection act.

6.1.2.b. Remove the "if necessary". Also, there should be provisions for the placement of groundwater monitoring wells.

6.2.1. Again, the "should" should be a "shall".

6.2.1.a. "impact negatively on" should be changed to "contaminate" or "pollute". This language is not entirely consistent with WV groundwater protection policy.

6.2.1.e. Besides discussion of this information, provision should be added indicating that any information gathered will go into DNR data base. and thus be provided in the correct format for integration into this data base.

6.2.2. The language contained in 5.5.3.a. through 5.5.3.e., and our comments concerning them, should be included here.

6.2.3.d. There should be requirements for review and approval of the plans.

6.3.2. The "should" should be a "shall".

6.3.3. There will most likely be many attempts to establish materials as innocuous. Who determines if the material is innocuous? What is the procedure for making this determination?

6.3.4. The language from 5.8.3. should be used.

6.4. The facilities should not be located over karst areas or shallow groundwater zones. Also, there is much more to consider in site selection. Refer to the siting criteria in the solid waste regulations (§47-38-3.1 and 3.2) for examples, such as distances from wells, streams, mining, highways, dwellings, faults, wetlands, etc.

To assure protection of groundwater there needs to be adequate siting criteria and design requirements. Additional monitoring will not provide protection, only yield better information concerning the extent of contamination of groundwater.

6.5.2. This language is a joke! Not only are there exclusions given to the same vague notions as in 5.10.2., but ash is included, and so is etc. the ambiguous term "etc." renders this language meaningless. If exclusions are going to be based on such improbable concepts, they should be specified, defined and tied to a review and approval process.

6.6.1. Leave off the "...if located in an isolated area..." language and require leak detection. The inspection language of 5.11.3. should be included here.

6.6.2. This language is unclear. It is saying that only sumps and tanks regulated by the Underground Storage Tank Act shall meet all the applicable groundwater protection requirements. We are not familiar enough with that

act to know the extent to which facilities that generate electric power are exempted. It would be more clear, and more consistent with the Groundwater Protection Act, to say "All underground sumps and tanks shall meet all the Underground Storage Tank requirements applicable to groundwater protection.

§ 47 - 58 - 8. Criteria Applicable to New Facilities or New Activities Not Specified In Sections 5, 6, 7, 14 or 15.

This section is even more vague than sections 5 and 6. There is not enough detail here for an applicant to know what is required.

8.1.2. If it has been determined that an impoundment "may impact groundwater quality", then the type of liner should be specified, or at least a minimum. We know that clay liners don't prevent the migration of contaminants, they only slow the migration down, so we are talking about synthetic liner systems.

§ 47 - 58 - 12. Prohibitions

12.2. The "/or" needs to be removed. Otherwise, this sentence allows the contamination of groundwater by any facility or activity with a valid permit. That is clearly contradictory with the provisions of the Act.

Also, it should be a permit that specifically allows the contamination of groundwater, not just any permit.

§ 47 - 58 - 13 Remediation

13.1. The Division should have not just the authority, but the duty to order remedial actions, as provided in §20 - 5M - 5.(e).

13.2. Once again, the "may" should be a "shall".

Submitted by:

Mary Wimmer
361 Laurel Street
Morgantown, WV 26505

Tom Degen
Rt. 3 Box 324
Chloe, WV 25235

29 1992

Mr. Laidley Eli McCoy, Chief
Water Resources Section
West Virginia Division of Environmental Protection
1201 Greenbriar Street
Charleston, West Virginia 25311

Attention: Patrick Campbell

July 27, 1992

Dear Mr. McCoy:

SUBJECT: JOINT COMMENTS OF THE WEST VIRGINIA COAL ASSOCIATION AND THE WEST VIRGINIA MINING AND RECLAMATION ASSOCIATION TO PROPOSED GROUNDWATER REGULATIONS: GROUNDWATER PROTECTION REGULATIONS, C.S.R. SECTION 47-58-1, ET SEQ.

The West Virginia Coal Association and the West Virginia Mining and Reclamation Association are pleased to submit combined comments on the proposed Groundwater Protection Regulations to be promulgated pursuant to the West Virginia Groundwater Act, West Virginia Code 20-5M-10. Although we are submitting a number of substantive comments on the proposed regulations, both associations wish to congratulate the agency on the development of these important regulations. It is our opinion that, with the proposed modifications, these regulations will form an equitable and effective groundwater management program which is both protective of the State's groundwater resource and reflective of the total needs of the people of West Virginia.

The preparation of these comments was made more difficult because of confusion relative to authoritative relationships of the various participating agencies. To date, there has been no formal explanation of shifts in responsibility/authority assigned by the Groundwater Protection Act, in light of the Governor's Executive Order No. 8-92.

We, in the State of West Virginia, find ourselves in an enviable position when it comes to groundwater. As noted in the Groundwater Management Strategy Manual, the groundwater in our state is clean and plentiful, with only localized problem areas. Since the State is not dealing with a groundwater problem, and since there is no threat of some impending catastrophe, we can design our management program to reflect

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 2

the total needs of our citizens--from jobs to environmental protection. It is with this in mind that we submit the following specific comments:

47-58-2. Definitions.

2.7. "New Facility" for the purpose of this regulation means any facility or activity which begins construction 180 days or more ~~initializes-operation~~ after the effective date of this regulation.

There are two problems with this definition. First, the term "initializes operation" is vague. Does it mean ground breaking or does it mean the point in time when production actually begins or is it some other point in time? The second problem is the ability of the regulated community to respond to these regulations. The regulated community cannot know exactly what their responsibility is until the regulations are final, yet this definition requires compliance on the effective date of the regulation.

The principal intent of these regulations is to prevent the contamination of groundwater through the use of physical barriers. These barriers can be designed into a new facility or they can be retrofit, to some lesser degree, into an existing facility. The difference between a new and an existing facility, for the purpose of groundwater protection, is the ability to design groundwater protection into the initial construction. The incorporation of groundwater protection into any design requires a period of time between the promulgation of final regulations and the effective date of those regulations. It is not clear whether such a time period will be provided. Therefore, the proposed modification is suggested for your consideration.

This modification solves both problems by establishing a clear and achievable requirement for the regulated community.

New Definition.

A definition is needed for the phrase "Potential to Contaminate." The Groundwater Act and these regulations contemplate the need to evaluate a facility or practice to determine if, and to what degree, groundwater protection is required. However, no criteria are provided to form the basis of this determination. Therefore, wherever such a determination is needed we recommend the use of the phrase "Potential to Contaminate" and we propose the following definition:

2.9. "Potential to Contaminate" means the condition of a facility or activity whereby the operation of that facility or activity can

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 3

reasonably be expected to result in a statistically significant change to groundwater quality.

Renumber existing Subsections 2.9, 2.10, and 2.11 to 2.10, 2.11, and 2.12, respectively. This is necessary due to the addition of "Potential to Contaminate" as 2.9.

2.910. "Practice" means any regulation, rule, policy, permit requirement, or other appropriate regulatory action which is protective of groundwater.

The problem with this definition becomes immediately apparent with its use in Section 47-58-3.1, wherein it is proposed to be established that "[p]ractices . . . are hereby incorporated by reference into this rule." The most troubling aspect of this proposed rule is the attempt to impose new regulations without complying with the rulemaking requirements of the Administrative Procedures Act; West Virginia Code 29A-3-1, et seq.

The result of the original proposal would be to impose contents of policies as rules, even though the agency will not have adhered to mandated rulemaking procedures which provide for the fullest and fairest analysis of the impact and validity of the policies as proposed rules. We are not even aware of which policies are contemplated for inclusion in these proposed rules. Since these policies would become part of the rules by reference, it would clearly create a situation of noncompliance with the rulemaking requirements of West Virginia Code.

2.1011. "Secondary Containment" means utilizing dikes, . . . vessels, or any combination thereof to prevent contaminants from accidentally discharging-into-the-environment polluting the groundwater.

Contaminants can be discharged into the environment without polluting the groundwater. Since it is the purpose of these rules to protect groundwater, the contents of the regulations should be so limited.

47-58-4. Practices Authorized by the Groundwater Protection Act.

4.1. Recognizing that in certain cases existing applicable regulations are more protective, and in the event this rule conflicts with another applicable rule, the most protective of groundwater shall apply.

The regulated community is concerned that the existing language would allow the application of any existing regulation where it is more stringent, even if that regulation is not applicable. For example, a hazardous waste requirement could be applied to a coal mine or a machine shop even if hazardous wastes are nonexistent. We recommend the

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 4

addition of the word applicable so that the meaning of this regulation is clarified.

A more fundamental problem exists with this proposed section. Until there is some indication of how the determination will be made as to the rule "most protective of groundwater," this section should be deleted totally. "Most protective" is too subjective and, therefore, does not give industry or the agency enough information to make consistent determinations. The industry and the regulatory agency should be able to consistently reach the same conclusions about the protectiveness of a particular rule. It is important that industry, through a reading of the regulations, knows which of a set of conflicting or duplicative rules he is to comply. As written, the regulated community will be faced with inconsistencies that will detract from the effectiveness of the proposed regulations because of varying interpretations of conflicting regulations.

47-58-5. Groundwater Protection Practices for Industrial Establishments.

5.2.1. Existing areas shall be evaluated for their potential to release-contaminants-to contaminate groundwater. Where potential exists, the areas shall have runoff and/or infiltration control systems. Placement of groundwater monitoring wells may be necessary to perform this evaluation.

These changes are proposed to utilize the definition for "Potential to Contaminate."

5.3.2. Product distribution facilities and-bulk-containers shall be designed to prevent spills and leaks from contaminating the groundwater.

5.3.3. Bulk containers shall be installed in structures designed to prevent spills and leaks from contaminating the groundwater.

Is it the intention of this regulation that bulk containers themselves are to be designed to prevent spills and leaks, or can a bulk container not so designed be placed into a containment that is designed to prevent contamination of groundwater?

Since most bulk containers are not designed to prevent spills and leaks, secondary containment is normally used as in SPCC requirements.

The purpose of the groundwater law is to prevent groundwater contamination, not necessarily to prevent leaks or spills. A leak is not always a threat to groundwater quality if it is not allowed to remain as a source of groundwater pollution for a period of time

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 5

sufficient to cause pollution. Therefore, the requirement, that structures be designed to prevent leaks, is excessively stringent because it does not allow for equally effective alternatives such as containment and removal of spilled or leaked materials.

5.4.1. Existing impoundments shall be evaluated for their potential to ~~release-contaminants-to~~ contaminate the groundwater . . .

These changes are proposed to utilize the definition for "Potential to Contaminate."

5.4.2. New impoundments shall be designed and operated to prevent ~~release-of-contaminants-to~~ contamination of the groundwater. New impoundments which, by virtue of the required site evaluation, are found to have the potential to contaminate groundwater shall use using liner or other appropriate control systems. New impoundments which do not have the potential to contaminate groundwater shall install a groundwater monitoring system wells. ~~will-be-placed,-if there-is-potential-for-groundwater-contamination.~~

This regulation assumes that all new wastewater impoundments are sources of groundwater contamination and, therefore, must be lined. Based on the proposed language, lining would be required even if the pond contained fully treated wastewater or water which only required solids removal and exhibited no threat of groundwater pollution. Prior to requiring the installation of liners, the pond's contents should be evaluated to determine if it poses a threat to groundwater. If a threat is found then liners can be required.

These changes utilize the definition for "Potential to Contaminate," and make it clear that liners are not automatically required for all new impoundments regardless of in-situ conditions, the quality of water/material impounded, and the potential to contaminate groundwater.

5.6.1. An inventory . . . of the potential for ~~soil-and~~ groundwater contamination;

These regulations are to be limited to protection of groundwater. Not all contamination of soils will result in contamination of groundwater.

~~5.6.3.--A-list-of-procedures-to-be-employed-in-the-design-of-any new-operations;~~

This regulation assumes that an Industrial establishment can foresee the new operations it will need. We wish that we were that omniscient. Since we cannot predict our need for new operations, we are unable to

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 6

develop a list of procedures to be employed in the design of these operations.

Any new operation must comply with all of the provisions of the groundwater protection act, consequently we cannot identify any value in speculating about things which we cannot know. This provision should be deleted in its entirety.

Subsections 5.6.4 and 5.6.5 should be renumbered to accommodate this deleted subsection.

5.7. Implementation Schedule for Existing Facilities -- In order to accomplish this task in a timely manner, the following schedule will be established.

5.7.1.--Begin-groundwater-assessment-survey-upon-promulgation-of these-regulations.

5.7.2.--Begin-collection-of-information-on-other-regulatory activities-upon-promulgation-of-these-regulations.

5.7.3.--Complete-assessment-survey-and-collection-of-information and-begin-drafting-of-Groundwater-Protection-Plan-(GPP)-within-six months-of-promulgation-of-these-regulations.

5.7.1. Within nine months of the effective date of these regulations, all regulated industrial establishments shall have a completed Groundwater Protection Plan (GPP). The GPP shall be based upon a groundwater assessment survey and an evaluation of other applicable groundwater protection regulations.

5.7.4. Implement Groundwater Protection Plan within one year of promulgation the effective date of these regulations.

These proposed regulations provide one year for the implementation of the groundwater protection plan. This is appropriate for existing facilities. However, new facilities should have a GPP in place when construction begins. Therefore, this regulation has been modified to apply to existing facilities, and a new section is proposed for 47-58-8.4 to deal exclusively with GPP's for new facilities.

The proposed Regulations 5.7.1 and 5.7.2 are generally unenforceable. What constitutes "begin groundwater assessment" or "begin collection of information?" Is assigning personnel to perform the task, or looking up one regulation sufficient? How is compliance with this provision determined? If these activities do not begin until the day after promulgation, is that a violation of the regulations? If so, when is the date of promulgation? Is it (a) the effective date of the regulations;

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 7

(b) the date the regulations are signed by the Governor; or (c) the date the regulations are proposed?

We propose that an enforceable date be established for the completion of the GPP's, that the GPP's be based upon the data required in 5.7.1 and 5.7.2. This presents a clear and measurable requirement for industry and for the regulator. Six months were proposed to begin the drafting of the GPP. We propose adding three months to that and requiring the completed document. The implementation of the GPP one year after the effective date of the regulations would be retained, but modified to clarify the compliance date.

5.8.1. All wastewater shall be treated and removed. All solids, sludges, etc., should be properly disposed of in a landfill unless in-place closure is to take place, in which case the material will be stabilized unless determined innocuous.

~~5.8.2. -- If in-place closure is to be performed, stabilize, if necessary, unless determined innocuous.~~

This section should be rewritten to make it clear that there are alternatives available for impoundment closure. As written, 5.8.1 establishes that all solids, sludges, etc., should be disposed of in a landfill. It is not clear if this section does allow for in-place disposal, and yet Section 5.8.2 describes required procedures if in-place closure is a chosen option.

Also, the requirement that all solids, sludges, etc., be disposed of in a landfill, is excessively stringent. If the impoundment is lined, or not contaminating the groundwater, why require the exuberant cost of removing the material from one site for disposal at another?

Renumber the remaining subsections to reflect the deletion of Section 5.8.2.

5.8.3. Impoundments should be filled in, graded, covered, or capped and vegetated.

We propose the addition of the phrase "covered, or" to allow the flexibility within the agency to use materials other than traditional caps when the situation is appropriate.

~~5.9. --- Site-Selection-Criteria --- Determine if shallow groundwater zones or karst areas exist and locate away from these areas.~~

It is prudent not to locate industrial establishments in areas which are sensitive to groundwater contamination. However, most industrial establishments can be designed and constructed so that groundwater contamination will not occur in any geological setting. The entire

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 8

State of West Virginia has shallow groundwater zones (less than 100 feet) and since the regulation refers to groundwater and not aquifers we can conclude that business should locate outside West Virginia.

Natural resource extraction does not have the flexibility to locate to a different site. The resource (coal, timber, etc.) must be extracted where it is found. Consequently, natural resource extraction cannot comply with this requirement.

This regulation implies that any new site should be drilled so that the local groundwater conditions can be determined. Most industrial establishments are small businesses, not large corporations. They do not have the resources to conduct a hydrogeological investigation only to find that the site is unsuitable and that another site must be purchased. A hydrogeologic investigation may be necessary where significant groundwater resources are present or where the facility poses significant risk, but this is not normally the case. Similarly, drilling for the presence of Karst zones is wasteful in most cases. The Karst areas of West Virginia have been mapped by the Geological Survey. Within these areas special precautions may be necessary but it is not necessary to determine information which already exists.

In order to protect sensitive, or significant groundwater resources, the State of West Virginia should identify and publish a map of the location of these resources so that agencies and individuals can make informed decisions.

Also, this provision will serve to limit industrial development in a small area of the State, thereby increasing the economic hardships of that area even beyond what will be felt in other areas.

Based on this discussion this provision should be deleted.

5.10.3. Ditches shall not be installed as primary conveyances where contaminants the potential to contaminate groundwater may occur unless provided with appropriate impervious liners.

These changes utilize the definition for "Potential to Contaminate."

5.12.1. Secondary containment (~~compatible-with-and-impervious-to the-contaminants-being-stored-or-handled~~), sufficient to retain contaminants for a minimum of 72 hours, shall be provided for all above ground tanks and vessels containing contaminants.

These changes make this provision consistent with the new SPCC requirements for above-ground storage tanks.

In order to comply with the intent of the West Virginia Groundwater Act, the operator need only retain a spill or leak for a period of time

sufficient to insure that the material is cleaned up before it can percolate into the groundwater in sufficient volumes to result in a pollution incident. The permeability of the containment liner need only reflect this degree of protection. An appropriate period of time would be 72 hours. Within this time, the operator will remove material from the containment area for proper disposal.

47-58-8. Criteria Applicable to New Facilities or New Activities not specified in Sections 5, 6, 7, 14, or 15.

8.4. Groundwater Protection Plan

8.4.1. Each new facility should have a comprehensive groundwater protection plan which covers all aspects of activities which could potentially contaminate groundwater. Each new facility shall conduct a groundwater assessment survey and prepare a groundwater protection plan containing the following:

8.4.1.a. Specific identification of all plant operations that may reasonably be expected to impact negatively on the groundwater resource;

8.4.1.b. A description of procedures designed to protect groundwater from the identified potential contamination sources;

8.4.1.c. A summary of all activities carried out under other regulatory programs that have relevance to groundwater protection; and

8.4.1.d. A discussion of all available information regarding the existing groundwater situation.

8.4.2. Development of a Best Management Practices (BMP) Plan to address groundwater protection procedures for the above activities. Particular areas to be detailed include outside materials/waste handling, equipment cleaning, construction activities and maintenance activities. BMPs should also clarify that no wastes be used for deicing, fills or any other use which could negatively impact groundwater, unless a reuse is provided for in existing regulations.

8.4.3. The GPP and the BMP plans shall be completed prior to the beginning of construction.

July 27, 1992
Mr. Laidley Eli McCoy, Chief
Page 10

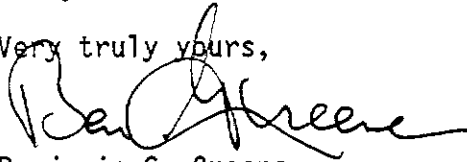
47-58-16. Criteria Applicable to Coal Extraction and Production
Facilities. (reserved)

The recent transfer of the DNR Water Resources authority into the Division of Environmental Protection merges two groundwater regulatory authorities. While each office within DEP is expected to administer the Groundwater Act within its jurisdiction, it is appropriate that the enabling regulations embrace all of DEP's responsibilities. Therefore, a new section applicable to coal mining should be included in the regulatory package. The regulations which will be included in this section are currently under development within the Office of Mining and Reclamation.

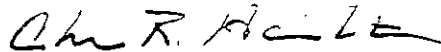
The addition of this section requires the modification of Sections 47-58-8., 47-58-9., 47-58-10., and 47-58-11., to include "16" as it appears in the following: "Not Specified in Sections 5, 6, 7, 14, 15, or 16."

The WVCA and WMRA, along with their members, appreciate having the opportunity to submit comments to the proposed regulations. Thank you for your kind attention to these comments.

Very truly yours,



Benjamin C. Greene
President
West Virginia Mining and Reclamation Association



Chris R. Hamilton
Vice President
West Virginia Coal Association

blu

Brannon

CHARLES McELWEE
JOHN C. PALMER IV
DAVID M. FLANNERY
JOSEPH S. BEESON
DAVID K. HIGGINS
M. ANN BRADLEY
ROBERT D. FLUHARTY
JOSEPH M. PRICE
KIM BROWN POLAND
MICHAEL B. VICTORSON
TIMOTHY M. MILLER
R. ALLAN WEBB *
WILLIAM C. FORTH, JR.
LYNN A. SMITH

HENRY C. BOWEN
WILLIAM E. ROBINSON
JOHN D. McCANN *
DOUGLAS C. McELWEE
DAVID L. YAUSSY 1
EDWARD L. KROPP 2
BRENT D. BENJAMIN
SARAH STUMP KOLB 3
ROBERT E. LANNAN II
CHRISTOPHER B. POWER
ROLAND T. HUSON, III 4
GINA S. McCANN *
R. CLARKE VANDERVORT 1
KENT J. GEORGE

LAW OFFICES
ROBINSON & McELWEE
P. O. BOX 1791
CHARLESTON, WEST VIRGINIA 25328

TELEPHONE (304) 344-5800
TELEFAX (304) 344-9566
600 UNITED CENTER

LEXINGTON OFFICE
P. O. BOX 1580
LEXINGTON, KENTUCKY 40502
TELEPHONE (606) 231-8131
LEXINGTON FINANCIAL CENTER

KATHY G. BECKETT
SCOTT A. CHURILLA
W. BRADLEY SORRELLS
DAVID S. RUSSO
KEITH J. GEORGE
JOHN C. CUMMINGS 5
MARK A. TOOR
BRAD A. SPRAYBERRY 6
BLAKE BENTON VICTOR 6
EDWARD J. GEORGE
MARTHA F. GAY 2
SEAN HARTER
BRIAN R. HOPKINS
PAUL G. PAPADOPOULOS

DAVID R. BUNGARD
MATTHEW B. CRUM
BRADLEY H. LAYNE
LISA M. KERN
JOHN H. JOHNSTON
BRIAN R. SWIGER

OF COUNSEL
E. GLENN ROBINSON
ROBERT P. GEORGE *
PHILIP A. REALE
H. L. STEPHENS, JR. *

(1) ALSO ADMITTED IN OHIO. (2) ALSO ADMITTED IN OHIO AND VIRGINIA. (3) ALSO ADMITTED IN KENTUCKY. (4) ALSO ADMITTED IN LOUISIANA. (5) ADMITTED IN KENTUCKY. (6) ADMITTED IN NEW JERSEY AND PENNSYLVANIA.

WRITER'S DIRECT DIAL NO. 347-8358

July 29, 1992

L. Eli McCoy, Ph.D
Chief, Water Resources Section
West Virginia Division of Natural Resources
1201 Greenbrier Street
Charleston, WV 25311

Re: Proposed Groundwater Protection
Regulations 47 C.S.R. 58

Dear Eli:

Enclosed please find the original and three copies of comments regarding the Division of Environmental Protection's proposed Groundwater Protection Regulations, 47 C.S.R. 58 which are filed on behalf of the Independent Oil and Gas Association of West Virginia and the West Virginia Oil and Natural Gas Association.

Please contact me if you have any questions.

Sincerely yours,

David Yaussy
David L. Yaussy

DLY:shb

Enclosures

**COMMENTS ON PROPOSED
GROUNDWATER PROTECTION REGULATIONS
TITLE 47, SERIES 58**

**SUBMITTED ON BEHALF OF
WEST VIRGINIA MANUFACTURERS ASSOCIATION
AND THE
WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION**

Prepared by

**ROBINSON & McELWEE
P. O. Box 1791
Charleston, WV 25326
(304) 344-5800**

**COMMENTS OF THE INDEPENDENT OIL AND GAS ASSOCIATION
OF WEST VIRGINIA AND THE WEST VIRGINIA OIL AND
NATURAL GAS ASSOCIATION REGARDING PROPOSED
GROUNDWATER PROTECTION REGULATIONS
47 C.S.R. 58**

I. INTRODUCTION

The Independent Oil and Gas Association of West Virginia (IOGA) and the West Virginia Oil and Natural Gas Association of West Virginia (WVONGA) are nonprofit state trade organizations representing companies engaged in the extraction and production of oil and natural gas in West Virginia. In addition, their membership includes drilling, contracting or supply companies, professional firms and royalty owners. The organizations are dedicated to promoting and protecting a strong, competitive and capable oil and natural gas producing industry in West Virginia and the nation.

IOGA and WVONGA offer the following comments regarding the groundwater protection regulations proposed by the Division of Environmental Protection (DEP) for inclusion in the Code of State Regulations at Title 47, Series 58.

II. COMMENTS

The West Virginia Groundwater Protection Act clearly provided that groundwater regulations pertaining to the oil and gas industry would be drafted by the Division of Energy. Even though the Division of Energy has been converted to the Division of Environmental Protection, it is clear that the Office of Oil and Gas is the logical successor to the Division of Energy's statutory authority. W.Va. Code §20-

5M-2(a)(9) indicates the legislature's desire to avoid disruption of existing state programs, and that end is not served by having an office originating in the former Division of Natural Resources imposing regulations on those facilities which are subject to the jurisdiction of the Office of Oil and Gas. Consequently, this rule cannot apply to oil and gas operations.

The Office of Oil and Gas is developing groundwater protection regulations which will be specific to oil and gas producers, and which may conflict with the groundwater protection regulations which have been developed by DEP. For example, the prohibition found in section 12.1 of the DEP's rule suggests an unfamiliarity with oil and gas operations that could result in an unwarranted interference in oil and gas operations. The Office of Oil and Gas is better equipped to address protection of groundwater from well operations, and this sort of provision is best left to its expertise.

In order to avoid contradictory and redundant regulation and to comply with the legislature's intent, IOGA and WVONGA recommend that the term "industrial establishment" be defined in such a way as to exempt any facility which is regulated by the Office of Oil and Gas. IOGA and WVONGA support the comments filed by the WVMA in this respect, since the WVMA's revised definition of "industrial establishment" would exclude from the scope of the regulation all facilities which are regulated by the Office of Oil and Gas. In addition, the DEP's Series 58 regulation should clarify that oil and gas facilities are not "New Facilities

LEGAL DEPARTMENT



Monongahela Power Company

Part of the Allegheny Power System

1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: **Groundwater Protection Regulations**
Title 47, Series 58

Dear Mr. Campbell


Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company


By Counsel
Gary A. Jaek
GAJ:drf

LEGAL DEPARTMENT



1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: Groundwater Protection Regulations
Title 47, Series 58

Dear Mr. Campbell

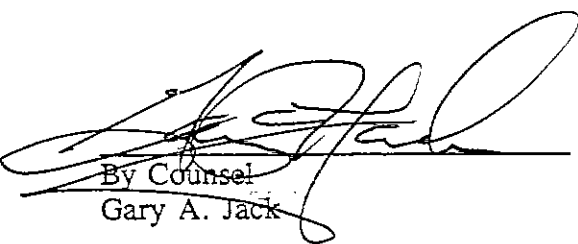
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf

LEGAL DEPARTMENT



Monongahela Power Company

Part of the Allegheny Power System

1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: Groundwater Protection Regulations
Title 47, Series 58

Dear Mr. Campbell

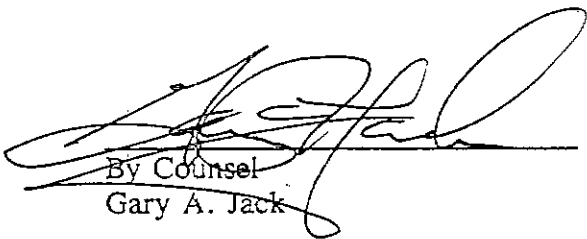
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf

LEGAL DEPARTMENT



Monongahela Power Company

Part of the Allegheny Power System

1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: Groundwater Protection Regulations
Title 47, Series 58

Dear Mr. Campbell

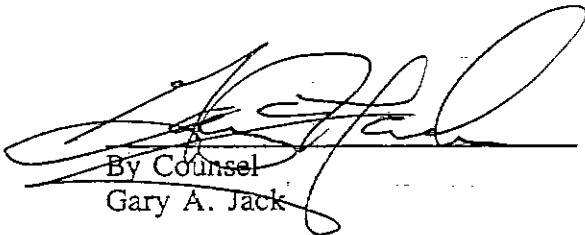
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf

LEGAL DEPARTMENT



1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: Groundwater Protection Regulations
Title 47, Series 58

Dear Mr. Campbell

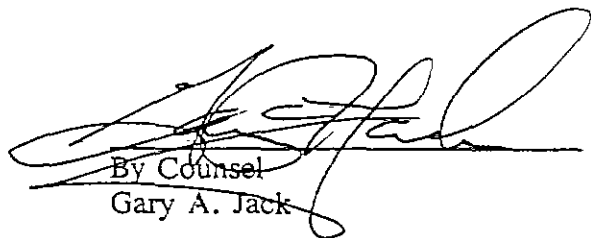
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf

LEGAL DEPARTMENT



Monongahela Power Company

Part of the Allegheny Power System

1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: **Groundwater Protection Regulations**
Title 47, Series 58

Dear Mr. Campbell

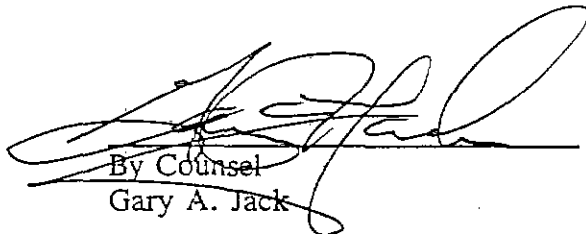
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf

LEGAL DEPARTMENT



Monongahela Power Company

Part of the Allegheny Power System

1310 Fairmont Avenue
P. O. Box 1392
Fairmont, WV 26555-1392
(304) 366-3000

July 27, 1992

Laidley Eli McCoy, Chief
Department of Natural Resources
Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

RE: Groundwater Protection Regulations
Title 47, Series 58

Dear Mr. Campbell

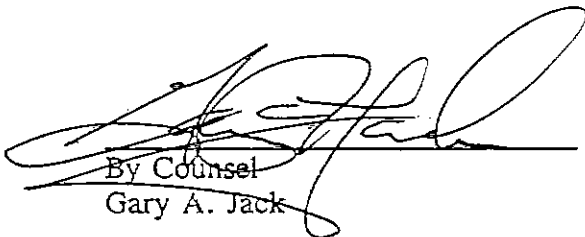
Monongahela Power Company and The Potomac Edison Company are electric utility companies that generate, distribute and provide electric service in northern and central West Virginia and hereby submit comments on the groundwater protection regulations.

The criteria applicable to facilities that generate electric power, as contained in Section 6 of the groundwater protection regulations, are a carefully crafted compromise that has been entered into between the agency, industry and environmentalists. An electric power groundwater subcommittee was established, chaired by Mr. Jerry Ray, which met in Charleston on numerous occasions and exchanged information and positions regarding criteria for electric power facilities. Mr. Jerry Ray assimilated all the positions and drafted a product acceptable to all. The consensus and product of that subcommittee are largely reflected in the groundwater protection regulations. While the regulations are not exactly what our companies desired, it is an acceptable compromise and should not be modified absent compelling reasons.

We appreciate the opportunity to comment.

Respectfully submitted,

Monongahela Power Company



By Counsel
Gary A. Jack

GAJ:drf



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
BELLE, WEST VIRGINIA 25015

29 1992

AGRICULTURAL PRODUCTS DEPARTMENT
BELLE PLANT, 901 W. DU PONT AVENUE

July 28, 1992

Laidley Eli McCoy, Chief
DEP Water Resources Section
1201 Greenbrier Street
Charleston, WV 25311

Attention: Patrick Campbell

Comments on Proposed Regulations

Title 47, Series 58, Groundwater Protection Regulations

We support the comments submitted by the West Virginia Manufacturers Association.

We believe that overall the regulations will provide the needed quality useful groundwater and prevent future major

are good regulations and ensure maintaining good groundwater of West Virginia and prevent contamination problems.

We believe the regulations provide the Chief with authority to exempt some situations from parts where the requirements are unnecessary or inefficient or there are alternative other regulations. S

17

within the regulations to authority to exempt some where the requirements are remediating groundwater, reasonable, or required by

- a. highway construction disturbing activities
- b. noncoal chapter subject to article four; W.Va. Code;
- c. any facility generating pursuant to an administrative order, permit, or other authorization calling for remedial action to be undertaken to address groundwater contamination;
- d. any facility or activity whose sole threat to groundwater quality standards relates to perched groundwater located entirely under a contiguous tract of land where there is no significant movement of the water to surface water or underground sources of drinking water.
- e. the injection zones of any Class I and V wells permitted pursuant to statutes and regulations governing the underground injection control program.

Also, the very broad range of activities that are covered under these regulations will undoubtedly result in individual situations that cannot be reasonably dealt with with these regulations and will require other specific actions. The Chief needs to have the authority permit alternatives.

Title 47, Series 59, Monitor Well

Drillers Certification

We believe this proposed regulation should be withdrawn. We believe this is an ineffective way to assure properly constructed groundwater monitoring wells.

We believe the most effective, manageable and economical method of assuring correct construction of groundwater monitoring wells is to require the well owner/operator to certify that the well has been constructed in accordance with the groundwater monitoring standards. One reference is Solid Waste Management Rules 3.8.4.

We would be pleased to work with you in providing additional information and references, and answering questions about the standards.

Sincerely,



R. F. SHERMAN
ENVIRONMENTAL COORDINATOR

RFS/twh
3.53

Memorandum
Ken Ellison
July 23, 1992
Page 2

5.11.2 Sumps by their definition are low collection areas; it is almost a necessity that they be installed below the ground surfaces. Is that underground?

5.12.3 Good!

6.3.5 This can be tricky. We must insure that sites don't just appear to be clean because of seasonal factors, etc.

8.3.1 The amount of secondary containment needs to be specific: ie. 100% 80%, etc.

13.1.2 This opens a giant loophole. It doesn't take much to justify something as economically unfeasible.

kw



STATE OF WEST VIRGINIA
 DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES
 WASTE MANAGEMENT SECTION
 1356 Mansford Street
 Charleston, West Virginia 25301
 Telephone (304)348-5929

GASTON CAPERTON
 Governor

J. EDWARD HAMRICK III
 Director

July 22, 1992

ANN A. SPANER
 Deputy Director

MEMORANDUM TO Riad Tannir
 FROM Lewis Baker *ZB*
 SUBJECT Comments on Groundwater Protection Regulations

These regulations do not apply to abandoned industrial properties (CERCLA), but only to active facilities (RCRA) where "wastes are produced" (see definition 47-58-2.4).

RCRA facilities "shall conduct a groundwater assessment survey and prepare a groundwater protection plan" (GPP). Will the GPPs be kept in company files, or will copies also be sent to the Groundwater Office, the Wellhead Protection Program, the RCRA office?

Under Impoundment Closure Requirements, 47-58-5.8.2, the regulations say "unless determined innocuous". This term and who determines it are not specified. How is "innocuous" to be measured?

The next subsection, 47-58-4.8.3, says "Impoundments should be filled in", etc. What happens if they are not?

Next, subsection 47-58-5.8.4, mentions "impoundments which were previously existing and where groundwater contamination had been determined to exist," etc.

What do we do with former impoundments, probably not properly lined, where groundwater contamination was not determined because it has not been monitored?

In subsection 47-58-5.9, Site Selection Criteria, the regulations read "Determine if shallow groundwater zones or karst areas exist and locate away from these areas". This sounds like voluntary zoning. There is no provision for enforcement, nor any definition of "shallow", or the proper horizontal distance to be removed from a "shallow groundwater zone or karst area".

Page 2
7-22-92

There is a subsection, 47-58-5.10.3, that applies to ditches. It is a good statement, but seems to be misplaced under the heading for 47-58-5.10 of "Pipelines and Pumps".

Subsection 47-58-11.3 applies to non-industrial impoundments. It states, "Impoundments must be filled," etc. This is much stronger than for industrial impoundments covered under 47-58-5.8.3 which uses the word "should". Why this difference?

RIGS Section 47-59-5 is titled "Identification Numbers of Monitoring Well ~~Regulations~~ and Monitor Well Head". Subsections 5.1 through 5.4 detail the 1 numbers for ~~regulations~~ only; well head ID numbers are not mentioned aga

LB/bc

cc: Ken Ellison
Pamela Hayes
File



Post-It™ brand fax transmittal memo 7671		# of pages	4
To	Pat Campbell	From	Ken Ellison
Co.	Water	Co.	Waste
Dept.		Phone #	
Fax #		Fax #	

STATE OF W
 DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES
 WASTE MANAGEMENT SECTION
 1356 Hansford Street
 Charleston, West Virginia 25301
 Telephone (304)348-5929

GASTON CAPERTON
 Governor

J. EDWARD HAMRICK III
 Director

July 23, 1992

ANN A. SPANER
 Deputy Director

MEMORANDUM TO: Ken Ellison
 FROM: Mike Dorsey *John D.*
 SUBJECT: Comments on Groundwater Protection Regulations (47CSR 58)

- 1.1 Division of Natural Resources should be changed to Division of Environmental Protection.
- 2.4 Why are POTWs excluded? POTWs also have the potential to pollute groundwater. Perhaps their potential is greater than many other facilities.
- 2.6 Is this definition workable? There are many other naturally occurring substances (such as salt) that may have an adverse affect on groundwater.
- 5.5.1 There needs to be a catch-all statement in case there are other areas that need to be covered that aren't in this section.
- 5.5.1 Bad English. Should read "...groundwater resources containing an indication...".
- 5.6.5 It is next to impossible for an individual to be sure that he has addressed "all available" information.
- 3.8.5 What is a current problem? This whole section doesn't read very well.
- 5.9 I can see many instances where it might be impossible to locate away from karst or shallow groundwater. How shallow is shallow?

CHARLES McELWEE
JOHN C. PALMER IV
DAVID M. FLANNERY
JOSEPH S. BEESON
DAVID K. HIGGINS
M. ANN BRADLEY
ROBERT D. FLUHARTY
JOSEPH M. PRICE
KIM BROWN POLAND
MICHAEL B. VICTORSON
TIMOTHY M. MILLER
R. ALLAN WEBB⁵
WILLIAM C. PORTH, JR.
LYNN A. SMITH

HENRY C. BOWEN
WILLIAM E. ROBINSON
JOHN D. McCANN⁵
DOUGLAS C. McELWEE
DAVID L. YAUSSY¹
EDWARD L. KROPP²
BRENT D. BENJAMIN
SARAH STUMP KOLB³
ROBERT E. LANNAN II
CHRISTOPHER B. POWER
ROLAND T. HUSON, III⁴
GINA S. McCANN⁵
R. CLARKE VANDERVORT¹
KENT J. GEORGE

WRITER'S DIRECT DIAL NO. 347-8358

LAW OFFICES
ROBINSON & McELWEE
P. O. BOX 1791
CHARLESTON, WEST VIRGINIA 25326

TELEPHONE (304) 344-8600
TELEFAX (304) 344-9566
600 UNITED CENTER

LEXINGTON OFFICE
P. O. BOX 1580
LEXINGTON, KENTUCKY 40502
TELEPHONE (606) 231-8131
LEXINGTON FINANCIAL CENTER

KATHY G. BECKETT
SCOTT A. CHURILLA
W. BRADLEY SORRELLS
DAVID S. RUSSO
KEITH J. GEORGE
JOHN C. CUMMINGS²
MARK A. TOOR
BRAD A. SPRAYBERRY⁵
BLAKE BENTON VICTOR³
EDWARD J. GEORGE
MARTHA F. GAY³
SEAN HARTER
BRIAN R. HOPKINS
PAUL G. PAPADOPOULOS

DAVID R. BUNGARD
MATTHEW B. CRUM
BRADLEY H. LAYNE
LISA M. KERN
JOHN H. JOHNSTON
BRIAN R. SWIGER

OF COUNSEL
E. GLENN ROBINSON
ROBERT P. GEORGE⁶
PHILIP A. REALE
H. L. STEPHENS, JR.⁵

(1) ALSO ADMITTED IN OHIO. (2) ALSO ADMITTED IN OHIO AND VIRGINIA. (3) ALSO ADMITTED IN KENTUCKY. (4) ALSO ADMITTED IN LOUISIANA. (5) ADMITTED IN KENTUCKY. (6) ADMITTED IN NEW JERSEY AND PENNSYLVANIA.

July 29, 1992

L. Eli McCoy, Ph.D
Chief, Water Resources Section
West Virginia Division of Natural Resources
1201 Greenbrier Street
Charleston, WV 25311

RECEIVED
JUL 29 1992

WATER RESOURCE SECTION

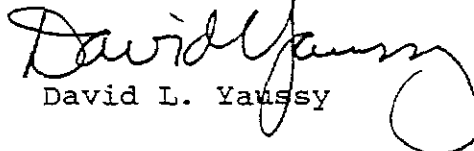
Re: Groundwater Protection Regulations

Dear Eli:

Enclosed please find the original and three copies of the West Virginia Manufacturers Association's comments on the Division of Environmental Protection's proposed Groundwater Protection Regulations, Title 47, Series 58.

Please contact me if you have any questions.

Sincerely yours,


David L. Yaussey

DLY:shb

Enclosures

**COMMENTS ON PROPOSED
GROUNDWATER PROTECTION REGULATIONS
TITLE 47, SERIES 58**

**SUBMITTED ON BEHALF OF
WEST VIRGINIA MANUFACTURERS ASSOCIATION**

Prepared by

**ROBINSON & McELWEE
P. O. Box 1791
Charleston, WV 25326
(304) 344-5800**

**GROUNDWATER PROTECTION REGULATIONS
TITLE 47, SERIES 58**

**PREPARED BY
WEST VIRGINIA MANUFACTURERS ASSOCIATION**

I. INTRODUCTION

On June 16, 1992 the Division of Natural Resources (now part of the Division of Environmental Protection, or DEP) proposed a new rule governing groundwater regulation, to be placed at Title 47, Series 58 of the Code of State Regulations. The West Virginia Manufacturers Association (WVMA) respects the work the DEP has put into the drafting of this proposed groundwater protection rule and applauds the flexibility allowed by the rule and reliance on site-specific plans for groundwater protection. Nevertheless, we urge the DNR to substantially revise the form of this rule to make it easier to understand and implement. In order to help in that process, the WVMA has prepared a revised groundwater protection rule and submits it along with these comments. We believe the revised regulation is a more workable substitute for the rule proposed by the DEP, while still providing the same degree of groundwater protection. The WVMA encourages its adoption by the DEP.

In order to explain the changes made by the WVMA to the DEP's proposed rule, and to offer suggestions for improvement of the DEP's rule if the WVMA's alternative is not accepted, the WVMA offers the following comments.

II. GENERAL COMMENTS

The Division's proposed regulations are generally reasonable but are somewhat complex, making it difficult to determine what portions of the regulations apply to what types of facilities. For example, Section 8 applies to "New Facilities Or New Activities Not Specified In Sections 5, 6, 7, 14, or 15". Do these rules apply to new activities at existing facilities? Is the title referring to criteria that are not specified in the designated sections, or the facilities and activities that are not specified therein? This problem recurs throughout the rule.

As a conceptual matter, it would be easier if the Division were to identify the universe of activities or facilities over which it has jurisdiction and specify the standards and practices that are universally required. The WVMA has tried to do this in its revised rule by expanding the definition of "industrial establishment" to include all facilities regulated by the DEP, and then proposing generally applicable standards. There are many general requirements that can be imposed on a wide range of facilities and to a broad spectrum of activities. If specific regulations are necessary for particular types of facilities or activities, they can be added in separate sections. However, the WVMA believes that general groundwater protection requirements will provide sufficient protection of groundwater in almost all locations and situations.

The WVMA also wishes to point out that the Groundwater Protection Act (the Act) provides great incentive to prevent and remediate groundwater contamination. While the WVMA does not object to the imposition of reasonable design standards,

believes that the possibility of violating the Act will cause all industrial establishments to carefully analyze all potential sources of groundwater contamination and develop the controls necessary to avoid that contamination. Consequently, detailed facility design specifications are not needed, and wide latitude should be allowed in facility operations.

III. SPECIFIC COMMENTS

A. Fiscal Note

The WVMA takes issue with the statement in the Fiscal Note accompanying this proposed rule that "There will be some cost to industry to implement these practices, however these costs will be more than offset by reduction or elimination of costs related to cleanup/remediation of groundwater." Such a blithe statement disregards the tremendous expense that will be involved in implementing this rule, a cost that will run into the millions of dollars. It is true that, in some cases, the changes brought about by these rules will prevent groundwater contamination and thereby avoid remediation expenses. On the other hand, not all existing facilities that are currently operated without groundwater protection controls are contributing to contamination, so some of the changes imposed by this rule will "prevent" problems that never would have arisen.

Every rule is promulgated in the belief that its benefits outweigh its costs. The WVMA agrees that groundwater protection is necessary, and that it will benefit the state in the end. However, it also believes that the DEP should acknowledge in the

fiscal note the great costs that will be immediately imposed on industry in this state, and the DEP should estimate the annual expense incurred by businesses in this state as a result of this rule.

B. Definitions

1. "Contamination" should be defined in such a way as to make clear that only releases in excess of background groundwater concentrations are prohibited, unless a different concentration becomes the standard as a result of a variance or deviation having been granted for a site. Otherwise, the regulated community is left with no guidance as to what degree of groundwater quality is being protected.
2. "Director" should refer to the Division of Environmental Protection now that the agency has been reorganized.
3. The definitions of "Existing Facility" and "New Facility" should be changed so that they no longer refer only to facilities, but also to any operation or activity as well. Furthermore, the dividing line between "existing" and "new" should be based on whether construction began on a facility, or whether an activity commenced, before the effective date of the regulations.
4. "Industrial establishment" is improperly defined, since it includes any "activity in the operational process of which . . . other wastes are produced." Without some limit on what constitutes an "activity", or a definition of "other wastes", this definition encompasses every waste-producing activity in the State, including domestic activities. It would be better to define "industrial

establishment" in a manner consistent with the language of the Act, by making the term include all sources of potential groundwater contamination that are subject to regulation by the Division of Environmental Protection. This is the broadest possible class of facilities that could be subject to these regulations and leaves aside (for now) the question of what facilities DEP has authority to regulate under the Act. That is a matter which can be resolved later if it arises.

The definition of "industrial establishment" should be further refined by eliminating all facilities that are regulated by the Division of Health or the Department of Agriculture, as required by the Act. Furthermore, the rule should not apply to any facility or activity regulated by the Office of Mines or the Office of Oil and Gas, since they will be developing their own groundwater protection regulations.

5. The WVMA acknowledges the Director's authority to order reasonable remediation activities, but does not believe that the Act allows the Director to order any person to "mitigate", in the sense of making reparation for, groundwater contamination, by replacement of water supplies or otherwise. Section 4 of the Act refers to mitigation, but only in the sense of remediation, or working to improve groundwater quality. The Act does not give the Director the power to order an alleged violator to pay damages for contamination of groundwater or replace a groundwater source. Consequently, the definition of "mitigate" should be deleted from the rule.

6. It is unclear why the term "naturally occurring substance" is substituted for the phrase "raw or processed coal." The substitute phrase is neither shorter nor more descriptive than the phrase it is intended to replace. It should be deleted from the regulations.
7. The term "practice" is defined in terms of agency activity, while its use in the body of the regulations refers to activities undertaken by the regulated facility. If the Division intends to use the word "practice" in the latter sense, it should be defined as "any action which is protective of groundwater."
8. The term "liner" is used throughout the regulations as a design standard that may be required in certain circumstances. The term should be defined if it is to be readily understood by the regulated community. The WVMA suggests that the definition of a "liner" be borrowed from the hazardous waste regulations and modified for purposes of this rule.
9. "Secondary containment" should be designed to prevent discharge of contaminants to the groundwater rather than to the environment. Furthermore, we understand that federal Spill Prevention Control and Countermeasures Plans will soon require that secondary containment be sufficiently impervious to prevent a release of tank contents from reaching groundwater for at least 72 hours, and suggest this as an alternate standard for tank secondary containment.
10. The WVMA proposes that the Director be given broad authority to waive the requirements of this rule for any industrial establishments if he believes that

doing so will not present an increased danger of groundwater contamination. Therefore, any special provisions for "small businesses" are unnecessary and a definition of the term can be eliminated from the regulation.

C. Section 3 - Incorporation by Reference

The WVMA strenuously opposes the language in Section 3 which incorporates into this regulation the groundwater protection provisions of West Virginia Code Chapter 20, Articles 5A, 5E, 5F, 5G, and 5H and the regulations promulgated thereunder. This is excessively broad and raises a tremendous number of difficult interpretational questions. For example, does incorporation by reference mean that all impoundments are required to comply with the liner requirements of the Solid Waste Management Regulations (47 CSR 38), even if they are not solid waste facilities? Are facilities now subject to double penalties, once for violating the original regulation and again for violating that regulation as it was incorporated by reference into these groundwater regulations? The incorporation by reference is simply unnecessary, because no one can reasonably contend that promulgation of these groundwater regulations suspends or limits other regulatory programs, except as provided in Section 4. Indeed, Section 4, which requires applying the rule that is most protective of groundwater whenever there is a conflict between these regulations and any others, would be rendered moot if all groundwater regulations were incorporated into these regulations. Since there is no need for the confusion that will result from application of Section 3, it should be deleted from the proposed rule.

D. Section 4 - Practices Authorized By The Act

The WVMA acknowledges that, where two different regulations establish standards or practices, the more restrictive standard or practice should usually control, absent provisions to the contrary. However, the WVMA proposes moving Section 4 to a separate portion of the regulation and combining it with another subsection which allows the Director to waive the requirements of this rule where appropriate. This would allow some needed flexibility in the rule and places the sections relating to application of this rule in the same place.

E. Section 5.2 - Outside Material Storage Areas

Industrial establishments should be allowed some flexibility in the actions they take to prevent groundwater contamination from outside material (including raw materials, products and wastes) storage areas. In some instances, all that may be needed is a roof or cover over the area where materials are stored, or a berm around the area to prevent stormwater from coming into contact with the material stored. These situations should be evaluated on a case-by-case basis as part of the groundwater protection plan, and do not require specific standards in this rule. Furthermore, the controls imposed by NPDES stormwater permits will include prevention of contamination of material storage piles, and those requirements must be considered when evaluating existing storage areas.

The term "runoff and/or infiltration control systems" is used in the regulation without definition. Without knowing what it means, the WVMA is unable to comment on its reasonableness, and suggests it be deleted. Similarly, no guidance

is provided as to when monitoring wells are necessary, and the WVMA suggests that a separate section addressing the Director's authority to order placement of monitoring wells be developed.

New facilities, which can be designed with groundwater protection in mind, could reasonably be required to use more extensive controls. The WVMA agrees that a liner should be considered whenever a new material storage area is developed.

F. Section 5.3 - Loading and Unloading

The WVMA agrees that general spill prevention control procedures should be followed at loading and unloading areas, and that equipment appropriate to spill cleanup and containment should be kept near loading areas. However, the Association believes that the requirements of this subsection should apply only to loading and unloading areas that are outdoors or lack secondary containment, and recommends a change of the subsection heading to that effect.

The requirement that product distribution facilities and bulk containers be designed to prevent spills and leaks is reasonable, unless the DEP has in mind some sort of design standard. In that event, the standard should be clearly stated, and should only apply to new facilities. It is not practical, from a cost and engineering standpoint, to redesign all existing product distribution and bulk tanks, but a design standard could be incorporated in new facilities.

G. Section 5.4 - Wastewater Impoundments

As with the outdoor material storage areas, the WVMA is unsure of what is intended by the requirement of "runoff and/or infiltration control systems." Is the

intent to eliminate runoff from the impoundments or into the impoundments? What is infiltration control? Presumably it is not a liner, since that term is used separately, but it is not clear what else is meant. Until the term is defined, the WVMA cannot evaluate whether it is a reasonable requirement, and therefore suggests that controls on impoundments be developed on a site-specific basis.

The WVMA agrees that liners and monitoring wells should be considered at new impoundments if there is potential for groundwater contamination. Liners or monitors may not be needed where there is no likelihood of contamination, such as at an impoundment which holds barely-contaminated stormwater or makeup cooling water.

H. Section.5 - Best Management Practices (BMP) Plans

The subsection dealing with BMPs is duplicative of the subsection which requires groundwater protection plans. Those two sections should be combined in the manner described in Section I of these comments. Regardless of whether this change is made, the WVMA has the following comments about BMPs.

1. BMP plans are required to address groundwater "as well as surface water." There is no explanation as to why surface water is mentioned here and nowhere else. Presumably, the Division is concerned about violations of water quality standards in surface water that are caused by non-point source groundwater discharges. If so, the Division should state so explicitly by defining groundwater in such a way as to include the effects of non-point source discharges of groundwater to surface water. As stated in this

regulation, though, the BMPs would have to address contaminated water that is processed through a wastewater treatment plant and discharged through a NPDES point source.

2. The BMPs provide that waste cannot be used for "deicing, fills, etc., unless provided for in existing regulations." The "etc." is too vague and should be replaced with more specific examples if the Division is aware of any other examples. Furthermore, the situations in which wastes may be beneficially used wastes should be extended to those which are addressed in permits and orders issued by the Division, and not limited just to those which are addressed by regulation.
3. Quarterly inspections of groundwater protection programs are unduly burdensome, especially at large facilities, where several days may be needed to complete the inspection. Annual reviews should be required instead.

I. Section 5.6 - Groundwater Protection Plans

Groundwater protection plans should be the heart of this rule. Each industrial establishment should be required to 1) identify all potential sources of groundwater contamination; 2) identify all statutes, rules, permits or orders that apply to them that impose obligations or conditions which are relevant to groundwater protection; and 3) compare the first list with the second to determine what further controls are needed to address potential contamination. In most cases, existing regulations, such as Spill Prevention Control and Countermeasures regulations or the Underground Storage Tank Act regulations, and permit conditions, such as those imposed by

NPDES permits or hazardous waste permits, or remediation orders issued by some governmental agency, will already be in place and protecting groundwater. The purpose of this rule should be to identify and close gaps in coverage, not creation of a new program which sets duplicative burdens on the regulated community. The WVMA urges the DEP to combine the sections dealing with BMPs and groundwater protection plans, eliminate redundancies, and emphasize them as the best tool for implementing the Act

J. Section 5.7 - Implementation Schedule

The WVMA does not object to the DEP's implementation schedule, as it allows a reasonable time to prepare a groundwater protection schedule. The DEP should clarify that design standards imposed on existing facilities, will be implemented by means of compliance schedules at the time a facility submits a permit for groundwater certification.

K. Section 5.8 - Impoundment Closure Requirements

Closure requirements for impoundments should be moved to the subsection which sets design standards for impoundments. Regardless of where the requirements are located, though, the WVMA has the following concerns.

1. Subsection 5.8.1 requires disposal of all solids or sludges in a landfill. This does not allow any beneficial use of the sludge, a practice which is encouraged by EPA. Several facilities in the state already land apply sludge as a fertilizer, and there are any number of other beneficial uses for sludge if properly controlled. In addition, it requires disposal in a landfill rather than by

incineration or some other reasonable method. To address these limitations, subsection 5.8.1 should be revised to add the words "or reused" after the word "disposed."

2. Subsection 5.8.5 relates to impoundments closed due to a "current problem" which require an "impermeable" cap. The former term is extremely vague and provides no notice of the type of problems that would require a cap, and the requirement of impermeability is probably more stringent than necessary, and may be technically impossible to achieve.

L. Section 5.9 - Site Selection Criteria

The WVMA agrees with the policy represented by Section 5.9; i.e., to avoid shallow groundwater zones or karst areas wherever possible. However, some facilities may already be located entirely above shallow groundwater zones or karst areas and therefore could not expand existing facilities. This section should be rewritten to recommend siting facilities in non-karst areas or away from shallow groundwater without mandating that activities and facilities must always be located away from these areas. The WVMA suggests adopting the first two sentences in Section 6.4, with the clarification that new facilities should be designed to protect the resource. Otherwise, the rule could be interpreted to require a complete redesign of existing facilities. Such a redesign would be prohibitively expensive and is impractical.

The WVMA also suggests that the term "shallow groundwater" be defined.

M. Section 5.10 - Pipelines and Pumps

The WVMA does not oppose the preference for installing new pipelines above ground, as long as the rule makes clear that certain types of pipelines, even those located at an industrial establishment, must be underground for reasons of safety or because it is the most logical location for them. For example, natural gas pipelines do not present a significant danger to groundwater, and would present a much greater safety risk from fire or explosion if they were located above ground. Furthermore, secondary containment measures on every natural gas delivery pipeline at a facility would be prohibitively expensive without serving any real purpose for groundwater protection. Consequently, the WVMA urges specific exemptions for the above ground preference for the types of wastewater pipelines already listed in the DEP's rule and for pipelines transporting natural gas.

There should also be an exemption from secondary containment and from the preference for above ground construction for pipelines carrying contaminated storm water. Storm water picks up its contamination from contact with wastes or products which are exposed to the elements and from there drains either to a treatment facility or some discharge point. If underground pipelines or sewers are not permitted to convey such storm water, it must be collected in sumps, pumped many feet above ground and then carried to its ultimate destination through overhead piping systems. Wastewater pipelines do not represent major sources of contamination and can logically remain underground.

The rule should also recognize that some pumps, such as cooling water pumps, are built to leak small amounts of cooling water around the seals in order to keep the seals properly lubricated. Such leaks do not present a hazard for groundwater, and they should not require secondary containment.

N. Section 5.11 - Sumps and Tanks

As with pipelines and pumps, the requirements that sumps and tanks have both leak detection systems and secondary containment is unduly burdensome. Underground storage tanks are regulated under a separate act which provides sufficient guarantees against releases from USTs to the environment through use of secondary containment, leak detection, spill and overfill reporting, etc. Further controls on USTs are unnecessary. As for above ground tanks, they should be addressed in the section that deals with diking and spill containment, rather than have multiple sections dealing with the same subject.

The WVMA suggests that the Division may have erred in suggesting that sumps may be installed underground only for overriding concerns. Sumps are, by their very nature, located at the lowest point in a drainage system, which will almost always be in the ground. It would be prohibitively expensive to locate all sumps above the level of the surface that is draining to it or retrofit all existing sumps. It would be more reasonable to require secondary containment for new sumps. In addition, quarterly inspection of sumps is excessive and should not be required.

O. Section 5.12 - Diking and Spill Containment

As drafted, the proposed rule would require impervious secondary containment for all "above ground tanks and vessels containing contaminants." The WVMA believes that secondary containment is not needed for all tanks, especially where the contents could not, because of the location or the capacity of the tank, reach groundwater, or the contents do not pose a danger of groundwater contamination. Consequently, subsection 5.12.1 should be rewritten to provide that an evaluation of secondary containment requires an analysis of the risk of tank failure and the potential of a release to reach groundwater. Furthermore that subsection should be changed by deleting the words "and impervious to." Requiring impervious containment would be extremely expensive (and perhaps technically impossible), given the number of tanks and containers that would have to be retrofitted with dikes or other types of containment. If a design standard is to be specified, the secondary containment could be required to contain a release of tank contents for a minimum of 72 hours.

P. Section 6 - Facilities That Generate Electric Power

The WVMA believes that the provisions applicable to electric generating facilities should be the same as those that apply to other industrial establishments. To the extent that electric generators require special provisions, the WVMA encourages them to be put in this section. However, all requirements which apply to all industrial establishments should be put in one location for ease of reference.

Q. Sections 8, 9 and 10 - Criteria For Various Facilities

As mentioned in the General Comments section, the WVMA is not sure what facilities are regulated under Sections 8, 9, or 10. To the extent Section 8 imposes controls on new sources of groundwater contamination at industrial establishments, the WVMA encourages the DEP to group those requirements in the appropriate subsection in the section which regulates industrial establishments. To the extent that Sections 9 and 10 are referring to facilities which do not qualify as "industrial establishments" under the DEP's definition of that term, those sections can be deleted if the DEP adopts the broad definition of "industrial establishment" recommended by the WVMA, because DEP would already be extending the scope of the rule to the fullest extent of its jurisdiction. Consequently, Sections 8, 9, and 10 should be deleted or incorporated into the rest of the rule.

R. Section 12 - Prohibitions

Section 12 is problematic because its application to industrial establishments is unclear. Presumably the DEP has some type of situation in mind where a spill would occur as a result of "deliberate" action, but the WVMA is unsure when this would occur at an industrial establishment. It may be that the DEP intends this prohibition to apply to oil and gas operations and, if so, this provision should be left to the groundwater protection rules that will be developed by the Office of Oil and Gas. If the rule is meant to apply to industrial establishments, the words "deliberately" and "impact" should be defined, and the prohibition should only apply to releases which reach groundwater, not those which could do so.

The WVMA also believes that section 12.2 needs substantial revision, since it uses ill-defined terms such as "impact" and seems to prohibit any release to groundwater, even if the release does not affect existing natural quality. If the DEP would refer to contamination of groundwater, and define contamination as the WVMA has suggested, this problem would be addressed.

Section 12.2 properly recognizes that a permit may allow contamination beyond natural background levels, a provision which the WVMA approves. Cleanup levels at sites with existing groundwater contamination may be specified by a permit or order issued by a government agency, and that level should be recognized as the level beyond which contamination will not be permitted under these regulations.

S. Section 13 -Remediation

The WVMA believes that the rules regarding remediation found in section 13.1 are reasonable for the most part and does not suggest any major changes. The WVMA does object to section 13.2, because the DEP does not have authority to require payment of reparations, or any other types of damages, as "mitigation".

IV. CONCLUSION

The WVMA appreciates the opportunity to provide these comments regarding, and a suggested revision of, the DEP's proposed groundwater regulations. We look forward to working with you on this rule.

Submitted this 29th day of July, 1992.

WEST VIRGINIA MANUFACTURERS ASSOCIATION

2.5. "Industrial establishment" means any facility or activity which could adversely impact groundwater and is subject to the jurisdiction of the Division of Environmental Protection, but does not include those facilities or activities which are regulated by the Department of Agriculture, by the Division of Health, or by any political subdivision or agency which is authorized by the Director to become a groundwater regulatory agency. "Industrial establishment" does not include any activity which is regulated by the Office of Mines or the Office of Oil and Gas of the Division of Environmental Protection.

2.6 "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill or landfill cell, which restricts the downward or lateral escape of the contents of the landfill or surface impoundment.

2.7. "New" facilities, areas and activities are those which begin operation, or on which construction begins, after the effective date of this regulation, or any activity which begins after the effective date of this regulation.

2.8. "Permit" means any license, certification, registration, permit, or any other approval granted by an agency authorized to regulate facilities or activities which may have an adverse impact on groundwater.

2.9. "Practice" means any action which is protective of groundwater.

2.10. "Secondary Containment" means using dikes, berms, synthetic or natural liner systems, double walled containment vessels, or any combination thereof to prevent contaminants from discharging into groundwater.

§ 47-58-3. Groundwater Protection Practices For Industrial Establishments.

3.1. Within one year of the effective date of these regulations, each industrial establishment must develop a comprehensive groundwater protection plan which addresses all potential sources of groundwater contamination. Each groundwater protection plan shall contain the following:

3.1.1. An inventory of all operations and activities that may reasonably be expected to contaminate groundwater and an indication of the potential for groundwater contamination. These include evaluation of outdoor manufacturing facilities, outdoor materials handling areas, loading and unloading areas, equipment cleaning, construction activities, and maintenance activities;

3.1.2. Identification of existing statutes, regulations, permits, orders and agreements which impose controls on facility design or operation that prevent contamination of groundwater. These would include, but would not be limited to, design standards and best management practices imposed by underground storage tank regulations, NPDES permits (including stormwater general permits) and solid or hazardous waste permits;

3.1.3. A description of new or additional controls or activities to prevent groundwater contamination that are not addressed by existing practices;

3.1.4. A list of procedures to be employed in developing new facilities or activities in a manner that is protective of groundwater;

3.1.5. Instructions that will be provided to all operation and maintenance employees on preventing groundwater contamination; and

3.1.6. Semi-annual inspection of secondary containment or testing of leak detection systems, and annual review and updating of the groundwater protection plan.

3.2. Outdoor Material Storage Areas

3.2.1. Existing outdoor areas at which coal, raw material, product or wastes are stored shall be evaluated for their potential to release contaminants to the groundwater. Where potential for contamination exists, action shall be taken to prevent groundwater contamination.

3.2.2. New outside areas at which coal, raw materials, products or wastes are to be stored shall be designed and operated to prevent release of contaminants to the groundwater, using a liner if necessary.

3.3. Loading and Unloading Areas; Distribution and Bulk Facilities.

3.3.1. Loading and unloading areas, including, but not limited to, areas used to load and unload drums, trucks and railcars, shall have spill prevention control facilities and procedures. Spill containment and cleanup equipment shall be readily accessible.

3.3.2. New distribution facilities and bulk containers shall be designed to prevent spills and leaks.

3.4. Wastewater Impoundments.

3.4.1. Existing wastewater impoundments shall be evaluated for their potential to cause groundwater contamination. Where potential exists, action must be taken to prevent further groundwater contamination.

3.4.2. New wastewater impoundments shall be designed and constructed to prevent groundwater contamination, using a liner where necessary.

3.4.3. Closure of Wastewater Impoundments.

3.4.3.a. Any wastewater impoundment that will no longer be used should be closed in a way that prevents groundwater contamination. All wastewater that could contribute to groundwater contamination shall be treated as appropriate and removed.

3.4.3.b. If solids and sludges are removed they should be properly disposed or reused. If in-place closure is to be performed solids and sludges should be stabilized, if necessary.

3.4.3.c. Impoundments should be graded and leveled to the maximum extent possible, including, where practicable, filling with soils or other material approved by the Director, capped if the Director determines necessary, and vegetated.

3.4.3.d. At impoundments where groundwater contamination had been determined to exist, requiring remedial action and groundwater monitoring, the groundwater monitoring must continue until results assure adequate remedial action was taken.

3.4.3.e. If impoundments are closed before remediation activities are complete, a cap should be placed over the impoundment when filled in and graded to facilitate surface water run-off.

3.5. Pipelines and Pumps.

3.5.1. New pipelines and pumps at industrial establishments must be designed and constructed to prevent contamination of groundwater, and should be installed above ground where practicable. New pipelines or pumps that are installed below ground should have secondary containment and leak detection, where appropriate.

3.5.2. Pipelines containing only sanitary wastewater, contaminated stormwater, raw water, cooling water, steam condensate, or ash slurry, and pipelines transporting natural gas, need not be constructed above ground or have secondary containment or leak detection.

3.5.3. New ditches shall be appropriately lined unless the substances in the ditch do not have the potential to contaminate groundwater.

3.6. Sumps and Tanks.

3.6.1. New sumps and new above ground tanks shall have secondary containment that is appropriate to the risk of containment failure and the potential to contaminate groundwater. Such secondary containment shall be sufficient to prevent the contents of the tank from reaching groundwater for at least 72 hours.

3.7. Site Selection Criteria.

3.7.1. If shallow groundwater or karst areas is present at the site of a proposed facility or activity, the facility or activity shall be designed to protect groundwater.

§ 47-58-4. Monitoring Wells.

4.1. Monitoring wells and piezometers shall be located, drilled and constructed in manner that allows accurate measurement of groundwater contamination and water levels and prevents contamination of groundwater through the finished well hole or casing.

4.2. The Director may require placement of a reasonable number of piezometers or monitoring wells at an existing industrial establishment in order to determine the extent and type of groundwater contamination and water levels. The Director shall not order placement of wells or piezometers until after consultation with the owner or operator of the industrial establishment.

4.3. New facilities or activities which have the potential to impact groundwater quality shall, at the Director's request, install and sample a sufficient number of groundwater monitoring wells to determine representative background groundwater quality for areas of groundwater which could be contaminated. One set of background water quality samples is required prior to facility operations.

§ 47-58-5. Remediation.

5.1. The Director has the authority to order persons to conduct remedial actions which are appropriate to the type and extent of contamination, and which are subject to applicable permit conditions and variances and deviations from existing water quality and water quality standards that are allowed under the Act. The

Director encourages agreements for investigation and cleanups in appropriate cases.

5.1.1. The use of permanent solutions to the maximum extent practical to correct groundwater contamination is preferred.

5.1.2. Natural attenuation of groundwater contamination may be an appropriate remediation response where active remedial measures are not technically and economically practicable.

5.1.3. Adequate groundwater monitoring shall be conducted to demonstrate control and containment of groundwater contamination. The director shall specify which parameters should be monitored in a remedial operation.

§ 47-58-6. Applicability of Requirements.

6.1. The Director may waive some or all of the requirements of this rule upon determining that such requirements are not necessary to protect groundwater from contamination.

6.2. Where the standards for facility design, or the activities required, by this rule are less stringent than the standards and activities required by other statutes, regulations, permit conditions or orders applicable to a facility, the more stringent requirement will apply.