

**TENTATIVE AGENDA**  
**LEGISLATIVE RULE-MAKING REVIEW COMMITTEE**  
**Sunday, January 6, 2002**  
**Noon to 2 p.m.**  
**Senate Finance Committee Room, M-451**

1. Approval of Minutes - December 10, 2001
2. Review of Legislative Rules:
  - a. Office of the State Auditor  
*State Purchasing Card Program, 148CSR7*
  - b. West Virginia Athletic Commission  
*Administrative Rules of the West Virginia State Athletic Commission, 177CSR1*
  - c. Records Management and Preservation Board  
*County Records Management and Preservation Grant Program, 100CSR1*
  - d. Human Rights Commission  
*Rules Regarding Waiver of Rights Under the West Virginia Human Rights Act, 77CSR6*
  - e. Human Rights Commission  
*The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7*
  - f. Human Rights Commission  
*The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9*
  - g. Office of Mining and Reclamation  
*Surface Mining Reclamation Rule, 38CSR2*
  - h. Office of Mining and Reclamation  
*Coal Related Dam Safety Rule, 38CSR4*
  - i. Environmental Quality Board  
*Requirements Governing Water Quality Standards, 46CSR1*
  - j. Environmental Quality Board  
*Requirements Governing Groundwater Standards, 46CSR12*

● 3. Other Business

Sunday, January 6, 2002

Noon to 2:00 p.m.

Legislative Rule-Making  
Review Committee  
(Code §29A-3-10)

Earl Ray Tomblin  
ex officio nonvoting member

Robert "Bob" Kiss  
ex officio nonvoting member

**Senate**

**House**

Ross, Chairman  
Anderson, Vice Chairman  
Minard  
Snyder  
Boley  
Minear

Mahan, Chairman  
Wills, Vice Chairman  
Cann  
Kominar  
Faircloth  
Riggs

The meeting was called to order by Mr. Ross, Co-Chairman.

The minutes of the December 10, 2001, 10 a.m. and 4:30 p.m. meetings were approved.

Debra Graham, Committee Counsel, stated that the rule proposed by the *Office of the State Auditor-State Purchasing Card Program, 148CSR7*, had been laid over at the Committee's December 10, 2001, 10:00 a.m. meeting to allow staff to have the Commission on Special Investigations review the proposed rule. Ms. Graham stated that she has talked to the Commission Staff and was awaiting further information.

Ms. Mahan moved that the proposed rule be moved to the foot of the agenda. The motion was adopted.

Connie Bowling, Associate Counsel, explained the rule proposed by the *West Virginia Athletic Commission-Administrative Rules of the West Virginia State Athletic Commission, 177CSR1*, responded to questions and stated that the Commission has agreed to technical modifications.

Mr. Minard moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling reviewed her abstract on the rule proposed by the *Records Management and Preservation Board-County Records Management and Preservation Grant Program, 100CSR1*, responded to questions and stated that the Board has agreed to technical modifications. Fredrick Armstrong, the Director of Archives for the Division of Culture and History, responded to questions and explained the Board's proposed modifications contained in a draft of the rule which was distributed to the Committee.

Ms. Mahan moved that the Board's proposed modifications and the technical modifications be approved. The motion was adopted.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling explained the rule proposed by the *Human Rights Commission-Rules Regarding Waiver of Rights Under the West Virginia Human Rights Act, 77CSR6*, responded to questions and stated that the Commission has agreed to technical modifications.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling reviewed her abstracts on the rules proposed by the *Human Rights Commission-The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7*, and *The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9*, and stated that the Commission is combining both rules into Series 7 and would withdraw Series 9. Ms. Bowling and Paul Sheridan, an Attorney for the Human Rights Commission, responded to questions from the Committee.

Ms. Minear moved that the proposed rule be laid over. The motion was adopted.

Joseph Altizer, Associate Counsel, explained the rule proposed by the *Office of Mining and Reclamation-Surface Mining Reclamation Rule, 38CSR2*, and stated that the Office has agreed to technical modifications. Mr. Altizer responded to questions and explained the modifications to the rule proposed by the Office of Mining and Reclamation. Chris Hamilton, a member of the West Virginia Coal Association, and John Ailes, Mining Advisor to the Department of Environmental Protection, responded to questions from the Committee.

Ms. Mahan moved that the proposed rule be laid over. The motion was adopted.

Mr. Altizer reviewed his abstract on the rule proposed by the *Office of Mining and Reclamation-Coal Related Dam Safety Rule, 38CSR4*, and stated that the Office has agreed to technical modifications. Mr. Altizer and Mr. Hamilton responded to questions from the Committee. Rick Eades, speaking as a concerned citizen, addressed the Committee.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Mr. Altizer explained the rule proposed by the *Environmental Quality Board-Requirements Governing Water Quality Standards, 46CSR1*, responded to questions and explained the modifications proposed by the Board.

Ms. Mahan moved that the Board's proposed modifications be approved. The motion was adopted.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Mr. Altizer reviewed his abstract on the rule proposed by the *Environmental Quality Board-Requirements Governing Groundwater Standards, 46CSR12*, and explained the modifications proposed by the Board. Mr. Altizer and Libby Chatfield, Attorney for the Board, responded to questions from the Committee.

Ms. Mahan moved that the proposed rule be laid over. The motion was adopted.

The meeting was adjourned.

**JANUARY INTERIM ATTENDANCE**  
**Legislative Interim Meetings**  
**January 6, 7 and 8, 2002**

Sunday, January 6, 2002

12:00 - 2:00 p.m.

Legislative Rule-Making Review Committee  
(Code §29A-3-10)

Earl Ray Tomblin, ex  
officio nonvoting member

Robert S. Kiss, ex  
officio nonvoting member

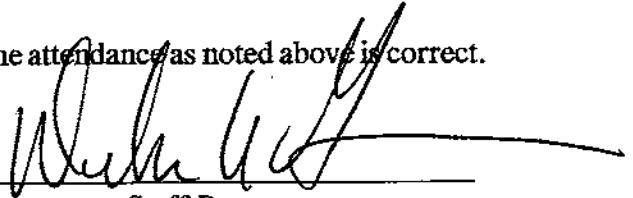
Senate

Ross, Chair ✓  
Anderson, Vice Chair ✓  
Minard ✓  
Snyder ✓  
Boley ✓  
Minear ✓

House

Mahan, Chair ✓  
Wills, Vice Chair ✓  
Cann ✓  
Kominar ✓  
Faircloth ✓  
Riggs ✓

I certify that the attendance as noted above is correct.



Staff Person

Terri Anderson

REGISTRATION OF PUBLIC  
AT  
COMMITTEE MEETINGS  
WEST VIRGINIA LEGISLATURE

Committee: Legislative Rule-Making Review Date 1/6/2002  
Please print or write plainly.

NAME	ADDRESS	REPRESENTING	Please check (X) if you desire to make a statement.
John Aikas	definite maybe	DEP	if needed
Robin Richter	W-502	Auditors Office	
Fredrick H. Armstrong	Cultural History/Archive	⇒	
Paul Sheridan	CRD P.O. Box 1789 Chas 25326	Human Rights Commission	X

Sunday, January 6, 2002

12:00 - 2:00 p.m.

Legislative Rule-Making Review Committee  
(Code §29A-3-10)

Earl Ray Tomblin, ex  
officio nonvoting member

Robert S. Kiss, ex  
officio nonvoting member

Senate

Ross, Chair ✓  
Anderson, Vice Chair ✓  
Minard ✓  
Snyder ✓  
Boley ✓  
Minear ✓

House

Mahan, Chair ✓  
Wills, Vice Chair ✓  
Cann ✓  
Kominar ✓  
Faircloth ✓  
Riggs ✓

Minutes approved

State Auditor - Purchase Card

Mahan  
adopted

Foot of the agenda

WV Athletic Commission

Minard

Connie explained & responded to q's  
Approve as mod.

Records Mgt - City records

Mahan

Connie explained  
Fred Armstrong, explained proposed  
modifications & responded to q's  
Approve as mod.

Human Rts - Waiver

Mahan

Connie explained & ended questions  
Approve as mod



## Human Rts - Def of Ebr & Ebc

Connie explained both rules at same time - combining both rules into Series 7; will withdraw Series 9;  
Paul Sheridan responded to q's  
lay over

## Mining & Reclamation

### Surface Mining

Joe explained & responded to q's

Chris Hamilton, Coal Assn addressed C & responded to q's

John Ailes, Mining Advisor DEP - responded to q's

Mahan  
adapted

lay over

## Mining & Reclamation - Coal Related Dam Safety

Joe explained & responded to q's

Chris responded q's

Pick Eads addressed C

Mahan

Approve as mod

## EQB - H<sub>2</sub>O Quality

Joe explained & explained agency mod.

Approve as mod

Mahan  
adapted

## EQB - Qnd H<sub>2</sub>O

Joe explained & state agency has proposed mod;  
responded to q's

Libby Chatfield, EQB responded to q's

**TENTATIVE AGENDA**  
**LEGISLATIVE RULE-MAKING REVIEW COMMITTEE**  
**Sunday, January 6, 2002**  
**Noon to 2 p.m.**  
**Senate Finance Committee Room, M-451**

1. Approval of Minutes - December 10, 2001

2. Review of Legislative Rules:

*Laid over*  
*Foot of agenda*

a. Office of the State Auditor  
State Purchasing Card Program, 148CSR7

*Approved as modified*

b. West Virginia Athletic Commission ✓  
Administrative Rules of the West Virginia State Athletic Commission, 177CSR1

*Approved as modified*

c. Records Management and Preservation Board ✓  
County Records Management and Preservation Grant Program, 100CSR1

*Approved as modified*

d. Human Rights Commission ✓  
Rules Regarding Waiver of Rights Under the West Virginia Human Rights Act, 77CSR6

*Laid over*

e. Human Rights Commission  
The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7

f. Human Rights Commission  
The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9

*Laid over*

g. Office of Mining and Reclamation  
Surface Mining Reclamation Rule, 38CSR2

*Approved as modified*

h. Office of Mining and Reclamation ✓  
Coal Related Dam Safety Rule, 38CSR4

*Approved as modified*

i. Environmental Quality Board ✓  
Requirements Governing Water Quality Standards, 46CSR1

j. Environmental Quality Board  
Requirements Governing Groundwater Standards, 46CSR12

3. Other Business

DRAFT

TITLE 77  
LEGISLATIVE RULE  
WEST VIRGINIA HUMAN RIGHTS COMMISSION  
SERIES 7

THE DEFINITION OF EMPLOYER  
UNDER THE WEST VIRGINIA HUMAN RIGHTS ACT

§ 77-7-1. General

1.1. Scope -- This legislative rule interprets and implements the provisions of the West Virginia Human Rights Act, particularly W. Va. Code § 5-11-3(d) related to the definition of employer, and is to assist all persons in understanding their rights, obligations and duties under the law.

1.2. Authority -- W. Va. Code § 5-11-8(h).

1.3. Filing date --

1.4. Effective date --

§ 77-7-2. Definition; Manner of Calculating Employees.

2.1. "Employer" means the state, or any political subdivision of the state, and any person employing twelve or more persons within the state for twenty or more calendar weeks in the calendar year in which the act of discrimination allegedly took place or the preceding calendar year: Provided, That such terms shall not be taken, understood or construed to include a private club.

2.2. For purposes of this rule, the number of employees shall be calculated by including all persons with whom the employer has an employment relationship, whether or not the person is performing tasks or receiving compensation from the employer on a particular day. Part-time and temporary employees and individuals placed in job assignments by employment agencies shall be counted for any week in

which such person has an employment relationship with the employer. Individuals employed by his or her parent, spouse or child shall not be counted.

G:\CIVL\REGS\EMPLOYER REGS 2001- SECOND REVISED.wpd

DRAFT

TITLE 77  
LEGISLATIVE RULES  
WEST VIRGINIA HUMAN RIGHTS COMMISSION

SERIES 6  
RULES REGARDING WAIVER OF RIGHTS UNDER THE ACT

§77-6-1. General.

1.1. Scope -- The following legislative regulations of the West Virginia Human Rights Act (HRA), W. Va. Code § 5-11-1 et seq., set forth criteria for regulating the voluntary release or waiver of an individual's right to pursue a claim ~~before the West Virginia Human Rights Commission~~ pursuant to the West Virginia Human Rights Act.

1.2. Authority -- These regulations are issued under authority of W. Va. Code § 5-11-8(h) and § 29A-3-1 et seq. They are modeled on the provisions governing waiver and release set forth in the Older Workers Benefit Protection Act of 1990 (codified at 42 U.S.C. § 626) and are designed to provide common criteria in federal and state standards concerning voluntary waiver and release.

1.3. Filing Date

1.4. Effective Date

§77-6-2. Commission's Right to Investigate.

2.1. No waiver agreement signed by any individual shall effect the Commission's right and statutory duty to enforce the West Virginia Human Rights Act or to investigate any complaint filed before it. No waiver agreement may be used to justify interference with the right of an individual to file a complaint or participate in any proceeding conducted by this Commission.

§77-6-3. Waiver Must Be Knowing and Voluntary.

3.1. An individual may not waive any right or claim under the West Virginia Human Rights Act unless the waiver is knowing and voluntary.

3.2. Except as provided in 3.3 A waiver shall not be considered knowing and voluntary unless all of the following conditions are met:

3.2.1. The waiver is part of an agreement between the individual and the employer that is written in plain English and in a manner calculated to be understood by the average person with a similar educational and work background as the individual in question;

3.2.2. The waiver specifically refers to rights or claims arising under the West Virginia Human Rights Act;

3.2.3. The waiver does not extend to rights or claims that may arise after the date the waiver is executed;

3.2.4. The individual waives a right only in exchange for consideration that is in addition to anything of value to which the individual already is entitled;

3.2.5. The individual is advised in writing to consult with an attorney prior to executing the agreement and is provided with the toll free telephone number of the West Virginia State Bar Association (1-800-642-3617);

3.2.6. The individual is given a period of at least twenty-one (21) days within which to consider the agreement; and

3.2.7. The agreement provides that for a period of at least seven (7) days following execution of such agreement, the individual may revoke the agreement in writing, and the agreement shall not become effective or enforceable until the revocation period has expired.

3.3. If a party who has filed a complaint pursuant to the West Virginia Human Rights Act executes a written release in connection with the settlement of the claims made in the complaint, and the release is entered into by such individual with the direct assistance of an attorney who has made an appearance on behalf of such complaining party, such release may be considered a knowing and voluntary waiver without regard to the requirements of 3.2.5., 3.2.6. and 3.2.7.

#### §77-6-4. Waiver in Connection with Group Program.

4.1. In addition to the requirements set forth in § 77-6-3, if a waiver is requested in connection with an exit incentive or other employment termination program offered to a group or class of employees, the employer must inform the individual in writing, in a manner calculated to be understood by the average individual eligible to participate, as to the following factors:

4.1.1. Any class, unit or group of individuals covered by such program, any eligibility factors for such program, and any time limits applicable to such program;

4.1.2. The job titles and ages of all individuals eligible or selected for the program, and the ages of all individuals in the same job classification or organizational unit who are not eligible or selected for the program;

4.1.3. The method and/or factors used or considered in arriving at the amount of consideration that is offered; and

4.1.4. The right to consider the agreement for a period of at least forty-five (45) days (instead of the twenty-one day period set forth in § 3.2.6. above).

#### §77-6-5. Burden of Proof on Waiver and Duress.

5.1. In any dispute that may arise over whether any of the requirements, conditions, and circumstances set forth above have been met, the party asserting the validity of the waiver shall have the burden of proving as an affirmative defense that a waiver was knowing and voluntary pursuant to the above terms.

5.2. Even if the conditions set forth in this rule have been met, an individual may show that a waiver is involuntary because it was executed as a result of a threat, intimidation or coercion on the part of the employer. The individual shall have the burden of proving that the threat, intimidation or coercion was a determining factor in the individual's decision to execute the waiver.

#### §77-6-6. Waiver as a Defense.

6.1. During the investigation of a complaint, a properly obtained waiver shall be considered as evidence that a violation of the HRA has not occurred. If a probable cause determination is made despite the presence of a properly obtained waiver, the employer shall be permitted to raise the waiver as an affirmative defense in its answer to the complaint. Upon a finding of probable cause to believe that unlawful discrimination has occurred, the Commission may prosecute a complaint in its own name regardless of a waiver.

§77-6-7. Limit on Confidentiality Provision.

7.1. Any confidentiality or other condition restricting the right of an individual to discuss the terms of a waiver shall be considered null and void and of no effect in regard to communication between an individual and the Human Rights Commission or an individual and similarly situated employees.

§77-6-8. Scope of Coverage.

8.1. The conditions of waiver set forth in this rule are declared to have equal applicability in regard to complaints involving alleged discrimination in employment, housing and public accommodation.

**NOTE:** This amendment is designed to make it clear that the provisions of these rules are designed to encourage representation by counsel, and delayed consideration of proposed waivers need not apply in circumstances where individuals are already represented by counsel and are negotiating over claims which are currently in litigation.



DRAFT

**TITLE 100  
LEGISLATIVE RULES  
RECORDS MANAGEMENT AND PRESERVATION BOARD**

**SERIES 1  
COUNTY RECORDS MANAGEMENT AND PRESERVATION GRANT PROGRAM**

**§100-1-1. General.**

1.1. Scope. -- This legislative rule establishes general guidelines for a county records management and preservation grants program administered by the Archives and History section of the Division of Culture and History for the Records Management and Preservation Board.

1.2. Authority.--W. Va. Code §§5A-8-15

1.3. Filing Date.--\_\_\_\_\_

1.4. Effective Date.--\_\_\_\_\_

**§100-1-2. Definitions.**

2.1. "Archival quality" means a quality of reproduction providing permanent, durable, and nondestructive storage or copying medium for records consistent with established standards specified by state and national agencies and organizations responsible for establishing such standards, such as the Association for Information and Image Management, the American National Standards Institute, the National Bureau of Standards, the National Archives and Records Administration, and others as applicable to the project submitted for funding.

2.2. "Archival record" means all non-current records of continuing and enduring value useful to the citizens of the state and necessary to the administrative functions of counties and municipalities in the conduct of services and activities mandated by law. In appraisal of public records deemed archival, the terms "administrative," "fiscal," "historical," and "legal" shall be defined as:

2.2.a. "Administrative value" means the records have continuing utility in the operation of an agency of a county.

2.2.b. "Fiscal value" means the records are needed to document and verify financial authorizations, obligations and transactions.

2.2.c. "Historical value" means the records contain information, regardless of age, which provides understanding of some aspect of the government and promotes the development of an informed and enlightened citizenry.

2.2.d. "Legal value" means the records document actions taken in the protection and proving of legal or civil rights and obligations of individuals and agencies.

2.3. "Board" means the Records Management and Preservation Board.

2.4. "Custodian" means the county official in charge of an office having public records.

2.5. "Director" means the Director of the Archives and History Section.

2.6. "Preservation" means maintaining archival records in their original form by stabilizing them chemically or strengthening them physically to ensure their survival as long as possible in their original form. It also means the reformatting of written, printed, electronic or visual archival originals to extend the life of the information.

2.7. "Public record" means recorded information that documents a transaction or activity by a county official or office. Regardless of physical form or characteristic, the recorded information is a public record if it is produced, collected, received or retained in pursuance of law or in connection with the transaction of public business.

The medium on which the information is recorded may be, but is not limited to, paper, film, magnetic, optical or solid state devices which can store electronic signals, tapes, Mylar, linen, silk or vellum. The general types of records may be, but are not limited to, books, papers, letters, documents, printouts, photographs, films, tapes, microfiche, microfilm, photostats, sound recordings, maps, drawings, and any representations held in machine readable form.

2.8. "Records Management" means the efficient and effective management and control of the creation, maintenance, use, and disposal of records, files and forms.

### **§100-1-3. County Records Management Assessment Program**

3.1. The Records Management and Preservation Board (Board) is aware of the serious need of county offices throughout the state to manage a vast accumulation of public records in several formats for administrative and public access. The Board seeks to compile information and supporting data on the volume, condition, storage, and preservation storage needs of county records. The information gathered will enable the Board to establish a uniform records management program, including but not limited to, preservation, reformatting, and enhanced public access, utilizing the most efficient and cost effective applications and applying best practices and standards available. The data will also provide the Board with information necessary to develop a competitive grants program to support county records projects implementing standards and priorities established by the Board.

3.2. To qualify and participate in this initiative, the county will complete and return a general survey form for all offices receiving public funds (local, county, state and federal), providing information on the office - staffing, quantity of space allocated for current and inactive records, date span and volume, types of records, and etc.

3.3. The Board, upon completion of general mail-in survey form, will sponsor and fund complete county records assessment surveys. These on-site surveys will be conducted using designs and guidelines developed from similar practices in other states and issued by the Board. These surveys will collect more specific data necessary to identify records management and preservation conditions and needs, which will serve as the basis for the Board's development of uniform records management procedures for all county government records.

#### **§100-1-4. County Records Management Program**

4.1. The Board, using data compiled from the surveys and best practices from other applicable state's records management programs, will compile and publish a county records management manual. This manual will issue general records retention and disposition schedules for county offices; provide information on records storage requirements both on and off site; filing systems; reformatting and electronic records guidelines; record destruction procedures; disaster preparedness procedures; and other record needs as identified by the survey data.

#### **§100-1-5. County Records Management and Preservation Grants Program**

5.1. Based on record needs identified by the survey data, the Board will identify priorities for records management and preservation of original historical public records and/or historical information contained on these records, and establish a competitive grants program for county projects addressing these priorities. Eligible program areas include, but are not limited to:

- (1.) Implementation of an approved records schedule;
- (2.) Processing and indexing projects;
- (3.) Storage of records; and
- (4.) Reformatting of records.

5.2. Grant applications will be prioritized in order issued by the Board. Priority will be given to applications utilizing nationally recognized standards for records management principles, procedures, and technologies, and archival quality preservation practices, processes and technologies as issued by the Association of Records Managers and Administrators (ARMA), National Association of Government Archivist and Records Administrators (NAGARA), International City/County Management Association (ICMA), and others.

5.3. Each funding period will be for one year to run concurrent with state fiscal year.

5.4. All county offices, having participated in the initial surveys, will be eligible to apply for funds but will not automatically receive funds. Grants will be evaluated and rated in accordance with program priorities established and published by the Board (section 4.2). The Board will consider grant applications and ratings and approve, amend or reject for full or partial funding.

5.5. Availability of the project application form and selection criteria will be announced by the Board in September of each calendar year, sent to the Clerk of the County Commission, to the West Virginia Association of Counties and its member associations, and made accessible on the Archives and History web page or upon request to the Director of Archives and History, 1900 Kanawha Boulevard, East, Charleston, WV 25305-0300. Hard copies of the completed application (one original and two copies) must be postmarked no later than the 1<sup>st</sup> day of November of each calendar year and sent to the Board care of the above address for Archives and History.

5.6. Successful grant recipients will be notified on or before the first day of March of the calendar year following the November submission.

5.7. Successful applicants will be required to:

5.7.a. enter into a binding contract to expend all grant funds awarded in accordance with state purchasing laws and rules;

5.7.b. meet standard financial management systems and general accounting standards for audit of government entities and organizations;

5.7.c. be agreeable to participate in pre-grant meetings and on-site visits; and

5.7.d. provide a report, by way of example, detailing project accomplishments, successes and failures, products, etc., and financial reports within ninety (90) days of the completion of the project or 30 September of the next fiscal year, whichever is earlier, to the Board care of the Director of Archives and History, 1900 Kanawha Boulevard, East, Charleston, WV 25305-0300.

5.8. Unsuccessful applicants will be notified in writing within fifteen (15) days of the Board's meeting to review, evaluate, and award grants on the applications submitted.

5.8.a. Any grant applicant failing to receive an award may appeal this action by submitting a written request for reconsideration with specific reasons as to why the Board's original decision should be overturned.

5.8.b. The request for reconsideration must be made to the Board addressed to the Director at Archives and History, 1900 Kanawha Boulevard., East, Charleston,

WV 25305-0300 within fifteen (15) days of receipt of notification of the denial of the grant request.

5.8.c. Within thirty (30) days of the request for reconsideration the Board will issue its final administrative determination on the grant request. The director will notify the appellant of the Board's decision in writing.

Summary of Changes38CSR2

December, 2001

Bonding is being  
returned to SB500  
prior language  
on matrix & ph  
of 120,000"

The following changes to the West Virginia Surface Mining and Reclamation Rule are being submitted to the West Virginia Legislature:

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Division" and inserting in lieu thereof the word "Department". Recent Code change reorganized the agency and changed Director to Secretary.

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Director" and inserting in lieu thereof the word "Secretary". Recent Code change reorganized the agency and changed Director to Secretary.

Cross reference corrections have been made throughout the rule.

**Page 5 - 2.31.b.1.** Forestry, as used in subsection 7.4 of this rule, means a long-term postmining land use for the production of wood or wood products designed to accomplish the following:  
**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 6 - 2.43 -** Deletion of 2.43 requires that 2.44 thru 2.108 be renumbered.  
**Recent Code change reorganized the agency and changed Director to Secretary.**

**Page 10 - 2.108 -** Secretary means the Secretary of the Department of Environmental Protection or his authorized agent.  
**Recent Code change reorganized the agency and changed Director Secretary.**

**Page 14- 3.1.1.2.** Forfeited a ~~performance~~ bond or similar security deposited in lieu of bond.  
**The word performance was deleted to be consistent with the Code.**

**Page 22 - 3.6.k** Added the phrase and comply with 45 CSR 17.

**Page 45 - 3.30.d.8.** Liability under the ~~performance~~ bond required to be filed by the applicant will be for the duration of the underground mining activities and until all requirements of the Act and this rule have been complied with;  
**The word performance was deleted to be consistent with the Code.**

**Page 48 - 3.32.e.** If the application is approved, the ~~Director~~Secretary shall require that the applicant file a ~~performance~~ bond as provided in sections 11 and 12 of the Act and section 11 of this rule.  
**The word performance was deleted to be consistent with the Code.**

**Page 63 - 5.4.e.2.** Inspections shall be made regularly but not less than quarterly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the ~~performance~~ bond.  
**The word performance was deleted to be consistent with the Code.**

**Page 71 7.4.a.1.** Commercial forestry and forestry may be approved as a postmining land use for surface mining operations that receive variances from the general requirement to restore the postmining site to its approximate original contour. An applicant may request AOC variance for

## Summary of Changes

### 38CSR2

December, 2001

purposes of this section for the entire permit area or any segment thereof. Commercial forestry shall be established on areas receiving a variance from AOC and either commercial forestry or forestry shall be established on all portions of the permit area. Provided, that the faces of valley fills shall be reclaimed as described in subparagraph 7.4.b.1.J of this rule.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 74 – 7.4.b.1.C.5.** For forestry, all ponds and impoundments, except for ponds and impoundments located below the valley fills created during mining shall be left in place after bond release and shall be subject to the requirements of subsection 5.5 of this rule, except for ponds and impoundments located below the valley fills. Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule. The substrate of the ponds and wetlands must be capable of retaining water to support aquatic and littoral vegetation.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 75 – 7.4.b.1.D.1.** Soil is defined as and shall consist of the O, A, E, B, C and Cr horizons. O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Cr horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 77 – 7.4.b.1.G.1.** Lesser or no vegetative cover may only be authorized by the Secretary when mulch or other soil stabilizing practices have been used to protect all disturbed areas unless demonstrated that the reduced cover is sufficient to control erosion and air pollution attendant to erosion regardless of slope

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 78 – 7.4.b.1.G.3.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.I.2.** Furthermore, for both commercial forestry and forestry, where there is potential for excessive erosion on slopes greater than 20%, there shall be 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter, except where a lesser vegetation cover has been authorized, and rock cover and at least 80% of all trees and shrubs used to determine re-vegetation success must have been in place for at least 60% of the applicable minimum period of responsibility.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.I.3.** Above and beyond all other standards in effect, Additionally, for commercial forestry, phase III bond release may not be authorized unless commercial forest productivity has been

## Summary of Changes

### 38CSR2

December, 2001

achieved by the end of the twelfth growing season or, if such productivity has not been achieved, if a commercial forestry mitigation plan is submitted to the ~~Director~~Secretary, approved and completed. **This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 87 - 7.5.i.1.B.** The land plan shall incorporate adequate road frontage to all parcels. Such roads shall be designated in the plan and referred to as "main roads." Main roads shall meet State Department of Highways standards, meet the primary road requirements of section 2.4 of this rule, and shall be certified as built as safe for passenger car traffic by registered civil engineer. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 89 - 7.5.i.3.Q.** The reservoir is subject to requirements under subsection 5.5 of this rule. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 91 - 7.5.i.10.** Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 93 - 7.5.j.3.A.** O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Cr horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 95 - 7.5.j.6.B.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 98 - 7.5.o.2.** Furthermore, in the conservation easement and public nursery areas, there shall be a 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter and rock cover. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 105 - 10.4.a.1.D.** The aggregate total prime farmland acreage shall not be decreased from that which existed prior to mining. Water bodies, if any, constructed during mining and reclamation must be located within the post reclamation non-prime farmland portions of the permit area. The creation of such water bodies must be approved by the Department of Environmental Protection and have the consent of all affected property owners within the permit area. **This is to address an item in the 732 letter dated July 22, 1997.**



## Summary of Changes

### 38CSR2

December, 2001

**Page 107 - 10.6.b.3.** The measurement period for determining average annual crop production (yield) shall be a minimum of three (3) crop years prior to release of the performance bond. **The word performance was deleted to be consistent with the Code.**

**Page 108 - 11.2.b.** All performance bonds shall provide a mechanism for a bank or surety company to give prompt notice to the .....

**Page 115 - 11.4.a.1.** A performance bond in the appropriate amount shall be filed with the ~~Director~~ Secretary for that increment of land within the permit area upon which the operator will initiate and conduct surface mining and reclamation operations.

**The word performance was deleted to be consistent with the Code.**

**Page 115 - 11.4.a.4 -** When the applicant elects to "increment" the amount of the performance bond during the term of the permit,

**The word performance was deleted to be consistent with the Code.**

**Page 116 - 11.5.** Deletion of 11.5,

**Open Acre Limit Bonding, requires that 11.6 thru 11.8 be renumbered. Old Section 11.5 was obsolete.**

**Page 117-118 Site Specific Bonding - 11.5.a.** Where active or inactive operations are in compliance with the provisions of subsection 14.15 of this rule and coal extraction operations are completed, or nearly completed, or when the operations are eligible for or have received Phase I bond release, the site specific bond criteria of this subsection shall not apply.

~~After January 1, 1994,~~ All existing permits for surface mining operations in the four major categories set forth in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~ Secretary and a determination made as to whether or not the surface mining operations are subject to the site specific bonding criteria set forth herein. The determinations shall be made in accordance with the following:

Existing permits in the four major categories described in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~ Secretary at the time of renewal or mid-term review, whichever occurs first, and a determination made as to the adequacy of existing bond and shall not be renewed by the ~~Director~~ Secretary until the appropriate amount of bond has been posted. ~~The existing bond may be determined to be adequate only if all the following criteria are met:~~

~~11.6.a.1. The operation is active at the time of application for renewal or mid-term review, whichever occurs first.~~

~~11.6.a.2. An approved mining and reclamation plan which is in accordance with the requirements of subsection 14.15 of this rule has been made a part of the permit, or has been submitted as a permit revision and is pending approval.~~

~~11.6.a.3. The operation is in compliance with the requirements of subsection 14.15 of this rule.~~

~~11.6.a.4. The operation is not under a cessation order or show cause order.~~

~~11.6.a.5. There are not delinquent civil penalties associated with the permit.~~

## Summary of Changes

### 38CSR2

December , 2001

~~Where the operation has an approved inactive status, it shall be subject to the site specific bond criteria of this subsection at the time of permit renewal or mid-term review, whichever occurs first, and shall not be renewed by the Director until the appropriate amount of bond has been posted.~~

**This is to update this section.**

**Page 140 - 12.2.c.1** After the operator completes the backfilling, regrading (which may include the replacement of topsoil) and drainage control of a bonded area in accordance with the Act, this rule, and the terms and conditions of the permit to include the provisions of subsection 14.5 of this rule, Phase I reclamation shall be considered complete, and sixty (60) percent of the bond or collateral for the applicable area may be released, provided that the amount of the remaining bond shall be sufficient to cover the estimated cost of completing reclamation in accordance with the requirements of the approved permit and reclamation plan.

**This is to ensure the sufficient bond is retained to cover remaining reclamation.**

**Page 144 - 12.5.d.** ~~Expenditures from the special reclamation fund for water quality enhancement projects shall not exceed twenty-five percent (25%) of the fund's gross annual revenue as provided in subsection g, section 11 of the Act.~~

**This is to satisfy required program amendments identified in the Federal Register.**

**\*Page 144 - 12.5.e.** On or before the thirty-first day of December, ~~one thousand nine hundred ninety three~~ two thousand and two and every year thereafter, the ~~Director~~ Secretary shall submit to the Legislature a detailed report and inventory, which includes but is not limited to dates of mining and abandonment, with all supporting data on acid mine drainage bond forfeiture sites.

**This is to be consistent with the recent Code change.**

**Page 161 - 14.12.a.1.** Procedures to Obtain a Variance. The ~~Director~~ Secretary may grant a variance from the requirements for restoring the mined land in steep slope areas to approximate original contour under the following terms and conditions:

14.12.a.1. The permit area is located on steep slopes as defined in subdivision 14.8.a of this rule and the land after reclamation is suitable for industrial, commercial, residential, ~~commercial~~ forestry, or public use (including recreational facilities);

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 169 - 14.15.a.** Spoil returned to the mined-out area shall be backfilled and graded to the approximate original contour ~~with all highwalls eliminated~~ unless a waiver is granted pursuant to 22-3-13(c)(2) with all highwalls eliminated.

14.15.a.1. deleted but added the following information into 14.15.a: Incorporate into the required mining and reclamation plan a detailed site specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ratio of disturbed versus reclaimed area throughout the life of the operation;

## Summary of Changes

### 38CSR2

December, 2001

**Page 170 - 14.15.b.5.** added Regardless of the allowable limits contained in this section, any disturbed area other than those specified in 14.15.c must complete backfilling and rough grading within 180 days of mineral removal.

#### **14.15.b.6. Changed There to Where**

**14.15.b.6.A.** Where operations contemplated under this section are approved with contour mining which may include augering or highwall mining, the acreage must be calculated in the allowable disturbance contained in this paragraph and the contour pit length cannot exceed 3000 feet and backfilling/grading shall follow mineral removal within 180 days. Regardless of the allowable limits contained in this section, any disturbed area other than those specified in 14.15.c. must complete backfilling and rough grading within 180 days of mineral removal.

**Page 171 - 14.15.b.6.B.1.** ~~Incorporate into the required mining and reclamation plan a detailed site-specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ratio of disturbed versus reclaimed area throughout the life of the operation;~~

**14.15.b.6.B.21.** Prestripping or benching operations will not exceed four hundred (400) acres for any single permit and cannot proceed dragline operations longer than 180 days. All fill construction must occur during this phase of operation and be conducted in accordance with 14.15.d.;

**14.15.c.1.** Semi-permanent ancillary facilities includes but not limited to haulroads, drainage control systems, parking areas, maintenance, storage and supply areas, etc., and areas cleared but not grubbed, provided, that such areas have appropriate drainage control systems in place. Provided that with exception of permanent haulroad and drainage control system the total acreage of all other semi-permanent ancillary facilities cannot exceed ten (10) percent of the total permit acreage;

~~**14.15.c.4.** Areas that have been cleared and grubbed which exceed the thirty aggregate acres and/or those which will not be included in the operational area within six months may be excluded if the appropriate temporary or permanent drainage control structures are installed and certified and have temporary vegetative cover established; and~~

#### **Page 172 - 14.15.c.54**

**14.15.d. Excess Spoil Disposal Fills.** All fills must be constructed contemporaneously and contiguously with that segment of the operation that contains the material that is designated to be placed in the fill. In addition to all other standards in effect, the following shall apply to excess spoil disposal fills:

**14.15.d.1.** All fills must be planned for continuous material placement until designed capacity is reached and cannot have a period of inactivity that exceeds 180 days;

## Summary of Changes

### 38CSR2

December, 2001

14.15.d.2. Areas where contour mining is proposed within the confines of the fill are not eligible for the exemption contained in 14.15.c.2.

14.15.d.3. Fills that are designed utilizing single lift, top down construction may be required to supply a supplemental bond pursuant to 11.5.b.4.

14.15.d.4. Clearing and grubbing activities in fill areas will be limited to no more than five (5) acres ahead of the developing face for fills utilizing single lift, top down construction and fills constructed in the conventional method described in 14.14.a.8 shall be subject to the limitations contained in 14.15.c.2.

**14.15.d changed to 14.15.e and requires 14.15.d through 14.15.f be renumbered and the 1993 date changed to 2002 in the entire section. The Secretary may consider contemporaneous reclamation plans on multiple permitted areas with adjoining boundaries where to ensure that contemporaneous reclamation is practiced on a total operational basis. Plans submitted on multiple permitted areas cannot add allowable disturbed areas in such a manner as to result in increased disturbed areas unless a variance is obtained pursuant to 14.15.g. This paragraph is meant to establish a method of orderly transition between operations.**

**14.15.fg. Variance - Permit Applications. The ~~Director~~Secretary may grant approval of a mining and reclamation plan for a permit which seeks a variance to one or more of the standards set forth in this subsection, if on the basis of site specific conditions and sound scientific and/or engineering data, the applicant can demonstrate that compliance with one or more of these standards is not technologically or economically feasible. The Secretary may not grant a variance that exceeds thirty (30) percent of the allowable acreage limits or 10% of the allowable percentages contained in this section. Furthermore, the amount of bond for the operation shall be based on the maximum amount per acre specified in WV Code §22-3-12(c)(1) and may be required to supply a supplemental bond pursuant to 11.5.b.4. The variance request shall be in writing and must contain the following elements:**

**Page 173 - 14.15.g.5 - 14.15.g.5. A detailed economic analysis including a discussion and feasibility analysis of possible alternatives that were considered must be submitted for variance requests that use economics as the basis for the request.**

**Page 173 - 14.15.g.h.**

**14.15.i. Revision. A revision is required prior to any change in mining methods which would affect the standards contained in this section.**

**Page 173 - 14.15.h through 14.15.l changed to 14.15.j. to 14.15.n**

**Page 174 - 14.15.m. changed to 14.15.o**

**Page 174 - 14.16 Added the phrase and comply with 45CSR 17.**

## Summary of Changes

### 38CSR2

December, 2001

#### **Page 181 - 182 17.4 and 17.5.a**

17.4. Request for Assistance. Each applicant requesting assistance shall provide information on forms provided by the ~~Director~~Secretary in an application that shall be clear and concise and shall be provided in a format prescribed by the ~~Director~~Secretary and/or a format required by the Federal Office of Surface Mining Reclamation and Enforcement. Each application for assistance shall include the following information:

17.4.a. A statement of the operator's intent to file a permit application;

17.4.b. The names and addresses of:

17.4.b.1. The permit applicant; and

17.4.b.2. The operator if different from the applicant.

17.4.c. A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant. The schedule shall include for each location:

17.4.c.1. The operator or company name under which coal is or will be mined;

17.4.c.2. The permit number and Mine Safety and Health Administration (MSHA) number;

17.4.c.3. The actual coal production during the year preceding the year for which the applicant applies for assistance and production that may be attributed to the applicant; and

17.4.c.4. The estimated coal production and any production which may be attributed to the applicant for each year of the proposed permit.

17.4.d. A description of:

17.4.d.1. The proposed method of coal mining;

17.4.d.2. The anticipated starting and termination dates of mining operations;

17.4.d.3. The number of acres of land to be affected by the proposed mining operation; and

17.4.d.4. A general statement on the probable depth and thickness of the coal resource including a statement of reserves in the permit area and the method by which they were calculated.

17.4.e. A U.S. Geological Survey topographic map at a scale of 1:24,000 or larger or other topographic map of equivalent detail which clearly shows:

17.4.e.1. The area of land to be affected;

17.4.e.2. The location of any existing or proposed test borings; and

17.4.e.3. The location and extent of known workings of any underground mines.

17.4.f. Copies of documents which show that:

## Summary of Changes

### 38CSR2

December , 2001

17.4.f.1. The applicant has a legal right to enter and commence mining within the permit area; and

17.4.f.2. A legal right of entry has been obtained for the program administrator and laboratory personnel to inspect the lands to be mined and adjacent areas to collect environmental data or to install necessary instruments.

#### 17.6. Qualified Laboratories.

17.6.a. General. A qualified laboratory means a designated public agency, private consulting firm, institution, or analytical laboratory that can provide the required determination of a probable hydrologic consequences or statement of results of test borings or core samplings or other services as specified under the Small Operator Assistance Program and that is approved by the Division~~Department~~ of Environmental Protection as a SOAP contractor.

**This is to address an item in the 732 letter dated July 22, 1997.**

**Pages 218 - 221 - New Section 25. - This is to address an item in the 732 letter dated February 7, 1990.**



Division of Mining and Reclamation  
#10 McJunkin Road  
Nitro, West Virginia 25143  
Telephone Number (304) 759-0510  
Fax Number (304) 759-0528

**West Virginia Department of Environmental Protection**

**Fax**

TO: Joe Altizer

FROM: Charles Sturley

DATE: 1/2/02 No. of Pages(including cover) 10

**COMMENTS:**

*No New Summary of Changes*



## ENVIRONMENTAL QUALITY BOARD

---

1615 Washington Street, East, Suite 301  
Charleston, West Virginia 25311-2126

Telephone: (304) 558-4002  
1-800-480-4598  
Fax: (304) 558-4116  
E-Mail: [Clerk@aqbeqb.state.wv.us](mailto:Clerk@aqbeqb.state.wv.us)

January 4, 2002

Senator Mike Ross, Cochair  
Delegate Virginia Mahan, Cochair  
West Virginia Legislature, Legislative Rulemaking Review Committee  
Building 1, Room MB-49  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610

Re: Legislative Rule 46 CSR 12 – Requirements Governing Groundwater Standards

Dear Senator Ross and Delegate Mahan:

As you know, the Board filed with your committee a proposed revision to the Groundwater Standards rule in August 2001. That proposal amended the Groundwater Standards rule by adding a numeric standard for arsenic of 0.05 mg/liter (50 ug/liter or 50 parts per billion, or ppb) which reflected the Maximum Contaminant Level ("MCL") established by the US Environmental Protection Agency according to the federal Safe Drinking Water Act. Since our filing, USEPA has announced the adoption of a new arsenic MCL of 10 ppb, which will take effect on February 22, 2002.

In response to this action by the USEPA, the Board held a public hearing on December 19, 2001 to hear comments on revising our proposal to adopt the 10 ppb value instead of 50 ppb. In addition to the hearing, we provided an opportunity for providing written comments through December 21, 2001. Copies of the comments received and the transcript of the public hearing are attached.

The Board reviewed the comments and discussed the proposal at a meeting on January 4, 2002. As a result of those discussions, the Board has decided to revise our proposal by including a groundwater standard for arsenic of 10 ppb, rather than 50 ppb. We believe that adoption of the 10 ppb value is consistent with the requirements of the WV Groundwater Protection Act, and further that it will provide the citizens of West Virginia groundwater protection and standards consistent with federal regulations. Please also note that this proposal is supported by the WV Department of Environmental Protection, as indicated in an attached letter from Allyn Turner, Director of the Division of Water Resources of the DEP.



Thank you for your consideration of this matter. If you have questions about this revision, please contact Libby Chatfield, the Board's technical advisor, at 558-4002.

Sincerely,



Edward M. Snyder  
Vice Chair



## ENVIRONMENTAL QUALITY BOARD

---

---

1615 Washington Street, East, Suite 301  
Charleston, West Virginia 25311-2126

Telephone: (304) 558-4002  
1-800-480-4598  
Fax: (304) 558-4116  
E-Mail: [Clerk@aqbeqb.state.wv.us](mailto:Clerk@aqbeqb.state.wv.us)

### NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENTS TO TITLE 46 SERIES 12, REQUIREMENTS GOVERNING GROUNDWATER STANDARDS

#### WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD

The Environmental Quality Board will hold a public hearing on a proposed amendment to the legislative rule, 46 CSR 12 "Requirements Governing Groundwater Standards", on December 19, 2001, at 7:00 p.m. at 1615 Washington Street, East, Charleston, Kanawha County, West Virginia in the hearing room located on the second floor.

In August, the Board submitted a proposal to the WV Legislative Rule-Making Review Committee to revise 46 CSR 12 to adopt a numeric groundwater standard for arsenic of 50 ug/l, which was the applicable Maximum Contaminant Level (MCL) established pursuant to the federal Safe Drinking Water Act. Recently, the US Environmental Protection Agency announced that it intends to revise the arsenic MCL from 50 ug/l to 10 ug/l, effective on February 20, 2002. The Board is now considering revising its proposed arsenic standard to reflect USEPA's new value of 10 ug/l.

Any person wishing to comment on the proposed amendment to the rule is invited to be present or represented at the hearing. Oral statements will be heard, and, in addition, written statements are encouraged for the accuracy of the record. Written comments will be accepted at the Board office until 5:00 p.m. on Friday, December 21, 2001.

Further information may be obtained by contacting the Board office at 1615 Washington Street, East, Suite 301, Charleston, West Virginia 25311-4002 or by calling (304)558-4002.

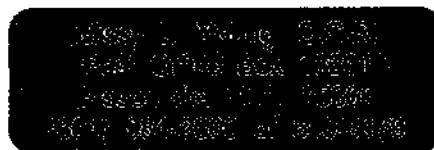
ORIGINAL

BEFORE THE WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD  
CHARLESTON, WEST VIRGINIA

IN RE: PROPOSED AMENDMENTS TO 46 CSR 12

"REQUIREMENTS GOVERNING GROUNDWATER  
STANDARDS"

Transcript of proceedings had at a public hearing in the above-styled matter taken by Missy L. Young, Certified Court Reporter and Commissioner in and for the State of West Virginia, before the West Virginia Environmental Quality Board, Board Member Cameron Hackney, in the Conference Room, 1615 Washington Street, East, Charleston, West Virginia, commencing at 7:00 p.m., on the 19th day of December, 2001, pursuant to notice.



APPEARANCES

THE QUALITY BOARD:

LIBBY CHATFIELD, Attorney at Law  
Environmental Quality Board,  
1615 Washington Street, East,  
Charleston, West Virginia 25305.

Report's Certificate . . . . . 24/25

1                                   P R O C E E D I N G S

2                                   MEMBER HACKNEY: Welcome everyone. Make  
3                                   sure we're all in the right place.

4                                   We're at the Environmental Quality Board  
5                                   meeting.

6                                   This will be the public hearing on the  
7                                   requirements governing ground water standards and we're  
8                                   looking at the arsenic and ground water here.

9                                   We have several people who have indicated  
10                                  they would like to speak. After a brief introduction, I  
11                                  would like to ask you to try to hold your comments down to  
12                                  about five minutes as you speak. We don't want to  
13                                  restrict anyone. If you feel that you need to go longer,  
14                                  please indicate that, but we would like to, in order to  
15                                  give everybody a chance to speak, and air your feelings  
16                                  that's-- try to limit to five minutes.

17                                 However, if you feel like you need to  
18                                 speak a little bit further, come back afterwards. We're  
19                                 not limiting anyone to that period of time, but just try  
20                                 to get passed on to the next person.

21                                 Let me introduce myself, I'm Cameron  
22                                 Hackney, and I'm the Environmental Quality Board member  
23                                 today.

24                                 Libby Chatfield, our counsel and advisor,

1 and Melissa Carte who is the secretary, and reporting, I'm  
2 sorry.

3 COURT REPORTER: Missy Young.

4 MEMBER HACKNEY: Missy Young.

5 Please be aware that these comments are  
6 applying to our ground water standards as we look at  
7 arsenic. And this is-- the reason for this change is  
8 coming from a change from the Environmental Protection  
9 Agency as they are looking at reducing their standards  
10 which, admittedly, you know, there are certain progression  
11 as they go into force.

12 I think they are looking at anywhere up to  
13 2004 to put these standards in place, but we know that  
14 these standards are coming and in order to get into the  
15 legislative session, and taking comments, from reducing  
16 the standards from 50 micrograms per liter to 10  
17 micrograms per liter. And the purpose of this would be to  
18 reflect the EPA's new values of 10 micrograms per liter.

19 With that, we would like to open it up for  
20 comment. I guess the easiest thing to do would be to go  
21 down the list as signed in.

22 Nathan, if you would like to speak first.

23 MR. FETTY: Okay. Should I just do it  
24 from my seat?

1 MEMBER HACKNEY: Sure.

2 MS. YOUNG: Stand up and state your name.

3 MR. FETTY: I'm Nathan Fetty, and I  
4 represent the West Virginia Rivers Coalition.

5 First of all, we appreciate that the Board  
6 is giving the public an opportunity to provide feedback on  
7 this new arsenic standard. We'll be submitting some more  
8 extensive written comments by your deadline, Friday of  
9 this week.

10 We're glad that the Board is revisiting  
11 this issue and considering an arsenic level that's more  
12 protective than 50 parts per billion level as said  
13 earlier.

14 The health risks of arsenic are pretty  
15 well established. Long term exposure to low  
16 concentrations of arsenic in drinking water can lead to  
17 skin, bladder, lung, and prostate cancer.

18 Non-cancerous effects of ingesting arsenic  
19 at low levels include cardiovascular disease, diabetes,  
20 and anemia, as well as reproductive developmental  
21 immunological, and neurological effects.

22 So given these serious health risks, the  
23 citizens of West Virginia are long overdue for a more  
24 protective arsenic level.

1                   Now, last summer during the public comment  
2 period on this issue, the Rivers Coalition asked the Board  
3 to consider an arsenic level for ground water of at least  
4 10 parts per billion if not a level that's more  
5 protective. Since then, as the Board is well aware, the  
6 National Academy of the Sciences released a study in  
7 September that concludes an arsenic level of even three  
8 parts per billion can pose significant health risks.

9                   While the standard of three parts per  
10 billion presents a risk that's at least ten times greater  
11 than EPA's highest acceptable cancer risk for drinking  
12 water contaminants, a three parts per billion standard is  
13 feasible. In other words, the technology is available to  
14 detect and treat for arsenic at this level. It follows  
15 then that a ten parts per billion level presents an even  
16 greater and unacceptable cancer risk. That's a risk of  
17 thirty deaths per ten thousand people.

18                   So we ask that the Board consider and  
19 adopt an arsenic level of three parts per billion.

20                   EPA's decision to set the arsenic standard  
21 at ten parts per billion is a decision that we're afraid  
22 is riddled more in politics than sound science and concern  
23 for the public's health. Therefore, we're hopeful that  
24 the Board will act on this shortcoming by the Federal



1 Government and adopt an even more protective arsenic  
2 standard.

3 Additionally, there are avenues in the  
4 state ground water standards for granting variances for  
5 this type of pollution, so an appropriately protective  
6 arsenic standard shouldn't pose a problem for an industry  
7 that has a site specific problem.

8 Also, state ground water regulations  
9 clearly outline that the Director of the DEP can grant  
10 ground water quality standard variances where a source of  
11 pollution can't meet the state's ground water standards.

12 The last thing that I will add is it's our  
13 understanding from EPA, under the new federal rule, that  
14 water providers will have until 2006 to comply with this  
15 new standard. And EPA also is planning to provide several  
16 million dollars over the next two years for research and  
17 development and technologies to help water systems meet  
18 the new standards. The EPA will also provide training in  
19 technical assistance to operators of small water systems.

20 So it seems that there are avenues as well  
21 that will assist water providers in meeting the new  
22 arsenic standard.

23 Thanks again for the option to do the  
24 comment. Like I said, we'll have written comments within

1 the next couple of weeks.

2 MEMBER HACKNEY: Thank you, Nathan.

3 Mr. Copley, would you like to go next?

4 MR. COPLEY: I'm Dole Copley, and I won't  
5 talk very long.

6 If you read the National Academy of  
7 Science Report, and I didn't, it was two hundred and  
8 seventy some pages, but I did copy down the summary. Ten  
9 part per billion is not good. It doesn't, it misses the  
10 EPA's own risk assessment guidelines by over 75 percent.  
11 Three parts per billion doesn't quite meet it, but it's  
12 closer to it than two.

13 If you've looked at this data in the  
14 Academy of Science Report, the people of West Virginia  
15 deserve, at least, to meet the standard risk assessment by  
16 the EPA and that would be three parts per billion.

17 And I would add that we already have a lot  
18 of arsenic in our soil. I remember a few years ago when  
19 they was talking about putting sewage sludge on the strip  
20 jobs, they couldn't meet the standard for putting the  
21 sludge on the strip job, because the ground already had so  
22 much arsenic in it. We have a lot of arsenic in West  
23 Virginia.

24 Thank you.

1 MEMBER HACKNEY: Thank you, Dole.

2 Julia.

3 MS. BONDS: I'm Julia Bonds, and I'm the  
4 Community Outreach Coordinator for Coal River Mountain  
5 Watch, which is a non-profit grass roots organization.

6 And my family has lived in the Coal River  
7 Valley for over six generations.

8 I commend the Board for the decision to  
9 revisit the arsenic issue and consider a more protective  
10 standard for the citizens of West Virginia.

11 Until recently most of Coal River has  
12 relied upon wells for their water. Many communities still  
13 rely upon wells. The communities of Unice, upper and  
14 lower Pettit, Charles Valley, White Oak, Artie, Lawson and  
15 so on and so on, and the list goes on.

16 Many people of Valley have been diagnosed  
17 with cancer, and all of these were different types of  
18 cancer. It seems that there is someone new everyday  
19 that's diagnosed with cancer in the coal fields.

20 Recently, three people that I know very  
21 closely, all living in the same household, and none are  
22 blood related, have been diagnosed with cancer, and none  
23 of those cancers are lung cancer with smoking related,  
24 smoking related illnesses.

1           A neighbor of theirs also has contracted  
2 skin cancer, and diagnosed with skin cancer. All these  
3 people rely upon wells for their drinking water. They  
4 live at upper Pettit. I'm sure these circumstances are  
5 not unique in West Virginia.

6           A very large percentage of world West  
7 Virginia, mostly in the coal fields, still rely upon  
8 ground water. Believe me when I tell you, this issue is  
9 important to the future of West Virginia, especially to  
10 our children.

11           Thank you, and I'll look forward to your  
12 decision.

13                         MEMBER HACKNEY: Thank you, Julia.  
14                         Jim.

15           MR. COATSON: My name is James  
16 Coatson. I am speaking tonight on behalf of the West  
17 Virginia Chapter of Seirra Club.

18           Earlier this year, I had submitted  
19 comments on the proposed arsenic standard and ground water  
20 in which we had requested that the standard be set no  
21 less, no higher than ten parts per billion and suggested  
22 that a standard as low three parts per billion may well be  
23 scientifically justified.

24           I guess I'm here tonight to clarify that

1 and as to why my position has changed on that. My  
2 position has changed because the science has changed.  
3 We've had new studies and reviews of arsenic issues in the  
4 last six months that have convinced me that a more  
5 protective standard is justifiable.

6 A couple of points that I would like to  
7 respectfully rebutt from some of the previous speakers,  
8 the concept that additional funding is available to  
9 address public drinking water treatment is probably not  
10 relevant to this standard setting, because the standards  
11 are set or intended to be set, to be protective of ground  
12 water quality. Whether that quality level needs  
13 additional treatment is probably not a relevant decision.

14 The fact that additional, or in certain  
15 areas, higher levels of arsenic may be present naturally  
16 in ground water, is also not relevant to setting a  
17 standard, because as is specified on the first page of the  
18 handout the authority of the Environmental Quality Board  
19 to promulgate standards under Section B, standards in no  
20 event shall such standards allow contamination levels in  
21 ground water to exceed maximum contaminant levels adopted  
22 by EPA pursuant to the Federal Safe Drinking Water Act.

23 The Board made such standards more  
24 restrictive than the maximum contaminant level where it

1 finds that such standards are necessary to protect  
2 drinking water use where scientifically supportable  
3 evidence reflects factors unique to West Virginia or some  
4 area thereof are to protect other beneficial uses of  
5 ground water.

6 Specifically, in all supervised exemption  
7 that where background concentrations of a contaminant  
8 exceed MCLs, certainly no further contamination by that  
9 constituent would be allowed, but there is no requirement  
10 for us to clean up a natural source nor should that  
11 standard be set pursuant to that.

12 So the question is are there factors that  
13 justify a more restrictive standard? And for that I would  
14 like to turn your attention to the National Academy of  
15 Sciences Report that is included, and on page 12 of that  
16 report, they specifically outline maximum likelihood  
17 estimates of excess lifetime risks. It says there, Table  
18 1 of the Executive Summary.

19 For arsenic concentrations at three  
20 milligrams per liter, that is a three part per million  
21 standard, an average of nine to eleven excess cancers per  
22 ten thousand people are predicted to occur. For arsenic  
23 concentrations at ten micrograms per liter, the proposed  
24 ten part per million standard, the cancer risk is

1 something like three times that level. Three times as  
2 many cancers will be inflicted at the higher standard.

3 These data need to be applied fairly  
4 carefully. First, there are a number of assumptions that  
5 go into how these estimates are collected. For example,  
6 these are not considered what we would think of as worse  
7 case estimates. They're not a 95th percentile. These are  
8 what we refer to as the maximum likelihood estimates.  
9 That's a medium guess, the 50th percentile. It may be  
10 higher. It may be lower. But their best guess is this is  
11 where it's at.

12 Secondly, there are a number of other  
13 assumptions that deal with the appropriate cancer baseline  
14 to which this is compared, the estimated risk levels and  
15 so on. These risk levels are based on a baseline cancer  
16 rate from United States' population. They extrapolate  
17 these from epidemiological data from studies in Utah,  
18 Taiwan, and Chile, which are considered to be the three  
19 classic cases.

20 And the National Academy of Sciences  
21 concluded several important things. First, they concluded  
22 that the data are adequate for a reasonable risk  
23 assessment.

24 Secondly, they concluded that there are

1 enough data about the mechanisms by which arsenic causes  
2 cancer that appropriate models for predicting cancer risks  
3 can be fairly reliable.

4 They made other assumptions about  
5 estimated exposure levels and so on. I won't go into the  
6 details of those. You're probably going to be very  
7 familiar with it. But I am here to argue tonight that this  
8 study is very powerful evidence that a more restrictive  
9 standard than the MCL is justified for ground water.

10 There are some policy implications to a  
11 more restrictive standard. If, in fact, the Board adopted  
12 a three part per billion standard, as I would recommend,  
13 it means that where water quality exceeds that level of  
14 arsenic, according to the statute, every reasonable effort  
15 would be made to prevent further contamination. If a less  
16 restrictive standard is applied, then those reasonable  
17 efforts to prevent more contamination would not be  
18 required on sites that are less than ten parts per  
19 billion. And what that means is that we could well  
20 approach the cancer risk levels that are outlined in this  
21 table and that means that in those situations there is a  
22 very significant risk of cancer, much more significant  
23 than would normally be considered.

24 Several years ago I was in the fortunate



1 position of working with the Department, or the Division  
2 of Environmental Protection at that point on a Brown  
3 Fields risk base cleanup standard for environmental  
4 remediation. At that point, there was a great deal of  
5 debate as to what is the appropriate cancer risk level.  
6 In a long consensus building process, there was a decision  
7 made that somewhere between a one and hundred thousand to  
8 one in a million was an appropriate cancer risk target.  
9 These risks are already ten to a hundred times that level,  
10 even after three part per billion standard.

11 Going to a ten microgram per liter  
12 standard makes the risks three times higher than that. I  
13 believe that's a very serious health burden to impose on  
14 the citizens of West Virginia. I think that provides more  
15 than adequate scientific justification, as well as an  
16 important policy justification for the more stringent  
17 standard, and I would urge its adoption.

18 MEMBER HACKNEY: Thank you.

19 Don?

20 MR. GARVIN: I'm Don Garvin. I'm the  
21 Legislative coordinator for the West Virginia  
22 Environmental Council.

23 I think I'll just submit copies, in  
24 writing, of my comments and also urge the adoption of the

1 three parts per billion standards, and possibly just say  
2 that there's nothing to prevent you from having a standard  
3 stronger than the federal standard.

4 MEMBER HACKNEY: Thank you, Don.

5 Liz.

6 MS. APPLE: My name is Liz Apple. I'm with  
7 the law firm of Robinson & McElwee.

8 First off, I'd like to dispute that, that  
9 there's nothing to prevent you all from enacting a  
10 standard that's more restrictive than the MCL.

11 In fact, the West Virginia Ground Water  
12 Protection Act requires you to have standards as stringent  
13 as the MCL, but not more stringent unless, as Mr. Coatson  
14 said, there are factors unique to West Virginia that make,  
15 that justify the more stringent standard.

16 And I'm not one-- I'd like to point out I  
17 don't know if the Board is aware that the compliance date  
18 for the ten microgram liter arsenic standard isn't until  
19 January 23, 2006, and given that the West Virginia Ground  
20 Water Protection Act requires us to have the same standard  
21 for arsenic as the MCL for arsenic.

22 I think that we should, the Board should  
23 enact the 50 microgram per liter standard until that time  
24 at that 2006 date, and at that point can become the 10

1 microgram per liter standard.

2 My second comment is while I understand  
3 that the West Virginia Ground Water Protection Act  
4 requires us to have somewhat of protection standards that  
5 are equal to the MCL, just for the record, I'd like to  
6 state that when EPA proposed the arsenic MCL several  
7 groups and one, in particular, was the utility water  
8 action group, commented that the arsenic, that an arsenic  
9 standard of 10 micrograms per liter may be effective for  
10 drinking water, but may not be effective for other types  
11 of standards, such as ground water protection standard.

12 I don't know if they specifically said  
13 that, specified the ground water protection standard, but  
14 there may be technical reasons why such a restrictive  
15 standard shouldn't be transferred to other types of  
16 standards.

17 That's it. Thank you.

18 MEMBER HACKNEY: Cathy.

19 MS. BECKETT: My name is Cathy Beckett. I  
20 am here representing the West Virginia Chamber. I'm from  
21 the law firm of Jackson & Kelly.

22 A couple of issues, one is, and we've  
23 reviewed the Ground Water Protection Act and it does  
24 require that the state adopt ground water quality

1 standards equivalent to the MCLs, or greater if there's  
2 justification based on unique characteristics in the  
3 state.

4 That presumes, however, that the MCL is a  
5 final one. And that's not what we have right here before  
6 us. And in fact, the point is, is that there are those  
7 poised to litigate this issue and I think that's been  
8 previewed for you by the comments by the environmental  
9 community. And our DC has announced that it may well want  
10 to initiate litigation over this standard upon the time  
11 when we have a final agency action where they can initiate  
12 judicial review of it.

13 Their assertion is it needs to be 3 parts  
14 per billion and then, of course, the agency is poised to  
15 take the position that it leave 10 parts per billion. The  
16 other controversy that is sitting out there is under the  
17 Safe Drinking Water Act and must be taken into  
18 consideration costs related to the implementation of the  
19 standard itself.

20 EPA has assumed that each community can  
21 afford a \$700. per household increase for the  
22 implementation of the arsenic standard. That's a very  
23 high-- there are those who assert that's very expensive  
24 and that its impact, particularly on rural water quality--

1 water systems will be hard and egregious.

2 So, we have-- we have poised out into the  
3 community folks all over the Board and whether or not what  
4 EPA is doing it is going to be appropriate and is going to  
5 withstand judicial review on the issue.

6 And I think that is probably why we saw  
7 the standard pause, particularly when there was a change  
8 in administration. The debate is out there.

9 I believe, the Chamber believes, that this  
10 bad policy for the Board to begin to adopting standards  
11 when it is clear that on the federal level ones we don't  
12 have a final action.

13 And also, it is clear that there's going  
14 to be a fair amount of litigation over the issue and when  
15 we were talking about an MCL that will not have a  
16 compliance date until the year 2006, I'm not sure I  
17 understand what the rush is for the Board to move ahead of  
18 itself when it's improper procedure anyway.

19 Although, if there is a unique arsenic  
20 issue that we need to be made aware of that's facilitating  
21 the Board's rather quick lurch-- launch into this issue,  
22 maybe we need to know that so that we can understand what  
23 makes this unique and why we're moving out ahead of the  
24 federal agency and the national debate on the matter.

1 I think that the Chamber is suggesting  
2 that we need to be regulatory efficient. We've seen our  
3 office of Air Quality jump into the standards for Ozone  
4 particulate, when there omits litigation, only to then  
5 have to go back and redo the rulemaking, I think that was  
6 an unfortunate move into rule-making when it wasn't  
7 appropriate.

8 The Chamber thanks you for the opportunity  
9 this evening to offer these comments. We will offer  
10 written comments by the deadline on Friday.

11 Thank you.

12 MEMBER HACKNEY: Robert.

13 MR. MERTZ: Yes, my name is Robert Mertz  
14 and I'm a science teacher from upper Roane County. And  
15 I'm not an expert on anything.

16 I've got a Masters Degree in Biology,  
17 which doesn't make me an expert on this. But what I would  
18 like to say as a citizen, I do depend on ground water for  
19 my water source and not all of the sources of arsenic --  
20 my expertise is basically, I'm just a degree in Biology  
21 and having looked through the internet a bit before I came  
22 here and noticing, for instance, in Bangladesh they have a  
23 big problem because the natural arsenic is quite high.

24 I'm aware that arsenic is naturally

1 occurring, but I don't really feel that's necessarily a  
2 direct concern to us in West Virginia, because, first of  
3 all, although it varies from place to place, I think we  
4 need to protect what we have at the lowest level possible.

5 The standards that I see set from all of  
6 the reviews that I got indicate that we will have excess  
7 people dying from cancers and related health concerns that  
8 were mentioned earlier quite adequately by other people so  
9 I won't go into that.

10 My big concern is this, I see the public  
11 is well aware of the word arsenic. There's well known  
12 plays, "Arsenic and Old Lace", and there's thousand TV  
13 shows where people get poisoned by arsenic. The public  
14 knows this word. They know that it's poisonous. And I  
15 think really what we're seeing is a struggle here between  
16 the cost to industries as opposed to the cost of the  
17 individual.

18 We hear a cost of \$700. per household.  
19 Well, that sounds really high, and it's kind of a scary  
20 thing, but how about the people who have cancer? \$700.  
21 sounds like peanuts to them.

22 I think we're seeing an issue where we're  
23 talking about the benefit of a small group of people who  
24 run industries saving their behind, trying to cut costs

1 and in the process stirring up problems that are going to  
2 affect the population as a whole.

3 I think we really have to look seriously  
4 at this issue of who is benefitting and who is being  
5 harmed. Because it's hard to track where these can come  
6 from, but yet it has been established that the cause is  
7 there. If you can't point your finger at individual  
8 people and say "that person died from this problem," but  
9 the statistics are clear.

10 It's like smoking. You can't tell who  
11 died from a cigarette and who died from radon. Why raise  
12 the level.

13 I really think we need to shoot for the  
14 lowest level possible. I strongly recommend that we go up  
15 to three parts per billion, from my point of view, because  
16 I think it is attainable in most cases, but isn't the  
17 variance processes in place and I, from my point of view,  
18 that's what I see.

19 I really appreciate you taking the time to  
20 hear me.

21 MEMBER HACKNEY: Thank you.

22 Now this is all the people who have  
23 checked, but I'd like to point out that just because you  
24 didn't check doesn't mean you aren't given a chance to



1 speak.

2 So, a few things, first. Is there anyone  
3 else who would like to speak?

4 And if not, would anybody like to make an  
5 additional comment. You're more than-- you're not  
6 restricted. You can make additional comments.

7 MR. MERTZ: I just have a question for  
8 clarification. When Mr. James, I forget his last name --  
9 I'm not sure if I misheard your or if you misspoke or I  
10 just was confused, but it sounded like earlier you had  
11 mentioned ten parts per million, three parts per million.

12 Did I mishear you, or did you misspeak, or  
13 was I just not understanding?

14 MR. COATSON: Should have been 10 parts  
15 per billion.

16 MR. MERTZ: I don't know. Did I mishear  
17 on that?

18 MR. COATSON: If I misspoke, I --

19 MR. MERTZ: Okay. I just wanted to be  
20 sure.

21 MS. CHATFIELD: We're make sure that it's  
22 reflected on the record.

23 MEMBER HACKNEY: Any other comments?

24 COURT REPORTER: Robert, your last name,

1 please?

2 MR. MERTZ: Mertz, M-e-r-t-z.

3 COURT REPORTER: Thank you.

4 MEMBER HACKNEY: Any one have anything to  
5 add?

6 MS. CHATFIELD: No, other than as a couple  
7 of the commentors have indicated the deadline for written  
8 comments will be Friday at 5:00 o'clock in the office, so  
9 if you would like to follow up on something that was said  
10 or if you didn't submit written comments today, you may do  
11 that. We will accept by fax or hand-delivery or email.

12 MEMBER HACKNEY: Representing the Board,  
13 we'd like to thank each of you for coming out. It's  
14 starting to be a rainy night out, and we wish everybody a  
15 safe trip home.

16 (WHEREUPON, the public hearing  
17 was adjourned.)

18

BEFORE THE WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD  
CHARLESTON, WEST VIRGINIA

STATE OF WEST VIRGINIA,  
COUNTY OF KANAWHA, to-wit:

I, the undersigned, Missy L. Young, a  
Certified Court Reporter and Commissioner within and for  
the State of West Virginia, duly commissioned and  
qualified, do hereby certify that the foregoing is, to the  
best of my skill and ability, a true and accurate  
transcript of all the proceedings had in the  
aforementioned matter.

Given under my hand and official seal this  
2nd day of January, 2002.

Missy L. Young, C.C.R.  
Certified Court Reporter  
Commissioner for the State of West Virginia

My commission expires April 15, 2008.

Dec. 19, 2001  
Public Hearing

CRS/MS/C

<u>Sign-In Sheet</u>	<u>Speaking?</u>
1. Nathan Feltz	YES
2. Wayne Leakey	✓
3. Julia Bonds	✓
4. James Koton	YES
5. Don Larwin	✓
6. Pam Nixon	
7. Liz Appel	✓
8. Kathy Beckett	✓
9. Kenneth Morris	
10. Paul Trammann	
11. Janet Hertz	
12. Robert A. Mertz	✓
13. Lauren Hackney	



Division of Water Resources  
1201 Greenbrier Street  
Charleston, WV 25311  
Phone (304) 558-0375  
Fax (304) 558-5903

---

## West Virginia Department of Environmental Protection

---

Bob Wise  
Governor

Michael O. Callaghan  
Secretary

January 3, 2002

**VIA FACSIMILE & U.S. MAIL**

Environmental Quality Board  
1615 Washington Street, E.  
Charleston, West Virginia 25311-2126

**RE: Proposed Arsenic Groundwater Standard**

Dear Board Members:

The Department of Environmental Protection's Division of Water Resources (DWR) would like to take this opportunity to support the Board's current proposal noticed December 4, 2001 regarding a Groundwater Standard for Arsenic at 10 ppb. This support is based upon the United States Environmental Protection Agency's (EPA) establishment of a final MCL for Arsenic effective February 22, 2002 at this level.

The Groundwater Protection Act, Chapter 22, Article 12, Section 4(b) requires the Board to establish standards of purity and quality for groundwater that in no event allows the maximum contaminants levels in groundwater to exceed contaminant levels adopted by EPA pursuant to the Federal Safe Drinking Act.

As the Board must be aware, EPA promulgated a final rule on January 22, 2001 establishing an alternative higher MCL of 10 ppb in lieu of the scientifically based feasible level of 3 ppb. Although EPA believed that there were a number of not yet quantified adverse health effects and potentially substantial non-monetized benefits at the 10ppb level, it also believed that the final MCL of 10 ppb represented the level that best maximizes health risk reduction benefits at a cost that was justified by the benefits (see Federal Register January 22, 2001).

Extension and delays to the originally promulgated effective date of March 23, 2001 were subsequently issued including to May 22, 2001 and then to February 22, 2002 (see Federal Register March 23, 2001 and May 22, 2001 respectively). These extensions were offered to convene a panel of scientific experts to review EPA's original interpretation and application of arsenic research discussed and evaluated as part of the National Academy of Science's 1999 arsenic report and to review and evaluate any new research since the 1999 report.

Also, in July of 2001, EPA issued a notice proposing four levels for an enforceable MCL of 3, 5, 10 and 20 ppb, 3 again being the feasible level and 5 offered as the original proposed level in June of 2000 all of which are below the Board's current level of 50 ppb.

The additional scientific peer review has now concluded with the release of three reports in October of this year with recommendations on the science, cost of compliance and benefit analysis that apparently supports the arsenic rule.

This Agency has not had the opportunity to secure and review the results of these recently released reports, and for this reason we urge, if not already undertaken, that the Board pursue these reviews.

However, subsequent announcements to these reports reveal that EPA has reaffirmed the implementation of the 10 ppb standard, presumably based on the aforementioned reports.

It is this Agency's understanding that questions have been raised as to the appropriateness of implementing this proposed rule prior to January 2006.

Our review of the basis for the EPA ruling in January of 2001 was that the January 23, 2006 effective date was provided to allow water systems a two year capital improvement extension period beyond the January 22, 2004 date established for monitoring arsenic at each entry point to a water system's distribution system. This would allow opportunity to plan, finance, design and construct new treatment systems that could assure compliance with the new MCL.

As these dates reflect only provisions for compliance and monitoring requirements applicable to community and non-transient, non-community water systems, it appears prudent that the Board pursue application of the scientifically established health based level as a new state groundwater standard at the earliest possible time.

In support of applicability at the earliest time, it should be noted that 47 CSR 57.6.11 provides that sources adversely affected by new standards not in effect on August 30, 1993 are eligible for variances for an additional 18 month period beyond the initial six month waiver period specified in that rule.

These state provisions for variances/waivers, as well as the opportunity to seek compliance schedules based upon new rules under 47 CSR 10, should provide ample opportunity and time to address compliance with any new rule if implemented subsequent to this upcoming legislative session.

Therefore, it is our position to support the Board's action of promulgating the Arsenic level as a Ground Water Protection Standard of 10 ppb as required by statute and Legislative Rule 47 CSR 57 at the earliest possible time.

Sincerely,



Allyn G. Turner  
Director

AGT:rsr/pm

Cc: Michael O. Callaghan, Secretary DEP  
Matthew Crum, Director, DMR  
Jerry Ray, Asst. Chief, Permits, DWR  
Randy Sovic, DWR  
Dave Watkins, DWR  
Ken Politan, DMR  
Mike Dorsey, DWR



# WEST VIRGINIA

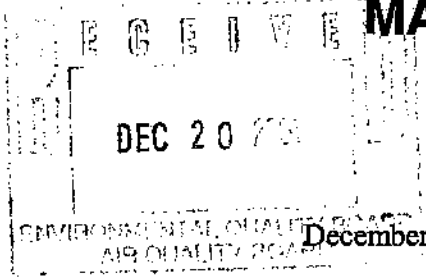
# MANUFACTURERS ASSOCIATION

2001 Quarrier Street, Charleston, WV 25311

Telephone: (304) 342-2123

FAX: (304) 342-4552

wvma@wvma.com



December 20, 2001

Dr. Edward Snyder, Chairman  
West Virginia Environmental Quality Board  
1615 Washington Street, East  
Charleston, WV 25312

Re: Proposed Revision to 46 CSR 12 to Include Arsenic Standard of 10 µg/l

Dear Dr. Snyder:

The West Virginia Manufacturers Association ("WVMA") is a trade association comprised of more than 200 members of the industrial community in West Virginia. The WVMA supports the Environmental Quality Board's attempt to facilitate the adoption of the recently established 10 µg/l Maximum Contaminant Level ("MCL") for arsenic. However, it appears that the Board has overlooked one important qualification of the Environmental Protection Agency's adoption of the 10 µg/l MCL: this standard does not become effective for compliance purposes until January 23, 2006. 40 C.F.R. § 141.6(j). While certain monitoring provisions contained in the Federal regulation establishing the 10 µg/l arsenic standard become effective in 2004, and consumer confidence rule reporting requirements become effective in 2002, the actual 10 µg/l standard does not become effective until 2006. The 50 µg/l MCL for arsenic remains effective until that date.

The West Virginia Groundwater Protection Act requires each State groundwater quality standard to be consistent with the parallel MCL except in those cases where scientifically supportable evidence reflecting factors unique to West Virginia have been presented to support a more restrictive standard. W. Va. Code § 22-12-4. Because no such evidence has been presented with regard to an arsenic standard more restrictive than the 50 µg/l MCL, the groundwater standard for arsenic must be designated as 50 µg/l until January 23, 2006.

Therefore, the WVMA requests that the Board revise its proposed rule to establish a 50 µg/l groundwater standard for arsenic until such time as the EPA counterpart standard becomes effective.

Respectfully submitted this 20<sup>th</sup> day of December,

Richard Thomas  
Water Team Leader  
West Virginia Manufacturers Association  
2001 Quarrier Street  
Charleston, WV 25311  
(304)342-2123

cc: Allyn Turner, Director, Division of Water Resources , WVDEP  
Karen S. Price, WVMA President  
Water Team Members

### Board of Directors

Amant Techsystems, Inc.  
Ashland, Inc.  
BASF Corporation  
Bayer Corporation  
Capitol Cement Corporation  
Century Aluminum  
Columbia Natural Resources


The Dean Company  
Downard Hydraulics, Inc.  
DuPont  
Eagle Manufacturing Co.  
Elkem Metals Company  
Flexsys  
FMC Corporation

GE Plastics  
Halltown Paperboard Company  
Inco Alloys International, Inc.  
Kanawha Manufacturing Co.  
Kingsford Manufacturing  
Koppers Industries, Inc.  
Marble King, Inc.

Mylan Pharmaceuticals, Inc.  
NKG Spark Plug, Inc.  
One Valley Bank  
OSB Operations - Georgia-Pacific  
PPG Industries  
Quebecor Printing  
Rhone-Poulenc Ag Company

Toyota  
U.S. Silica Company  
Union Carbide Corporation  
W.M. Cramer Lumber Co.  
Weirton Steel Corporation





bc: Mr. Rich Thomas  
David L. Yaussy

# JACKSON & KELLY PLLC

ATTORNEYS AT LAW

1800 LAIDLEY TOWER

P. O. BOX 553

CHARLESTON, WEST VIRGINIA 25322

TELEPHONE 304-340-1000 TELECOPIER 304-340-1130

<http://www.jacksonkelly.com>

[kbeckett@jacksonkelly.com](mailto:kbeckett@jacksonkelly.com)

(304) 340-1019

December 20, 2001

Dr. David E. Samuel  
Chairman  
Environmental Quality Board  
1615 Washington Street, East  
Charleston, West Virginia 25311

Re: Arsenic Groundwater Quality Proposal.

Dear Chairman Samuel:

This comment letter is filed on behalf of the membership of the West Virginia Chamber of Commerce. The Environmental Quality Board has proposed amendment to the groundwater quality standards for arsenic which were recently announced by EPA for adoption of 10 ppb. EPA issued a press release on October 31, 2001 stating that it intended to officially adopt that standard. To date, EPA has not taken final agency action on modification to the arsenic public drinking water standard. There is no information as to when the agency will be publishing the standard in the federal register. The Chamber does not support the Board taking action on a federal rule that is not final.

The WV Groundwater Protection Act provides that the Environmental Quality Board shall promulgate standards that "establish the maximum contaminant levels permitted for groundwater, but in no event shall such standards allow contaminant levels in groundwater to exceed the maximum contaminant levels adopted by the United States Environmental Protection Agency pursuant to the Safe Drinking Water Act." W.Va. Code §22-12-4(b). The standard the Board has proposed to adopt is not an official MCL promulgated by EPA and, as a matter of procedure, it is not appropriate for the Board to move forward with this matter, prior to EPA's final action. It is also well to note that EPA is getting pressure concerning its preliminary announcement.

It is anticipated that litigation concerning the standard will ensue. The Natural Resource Defense Council ("NRDC") has suggested in its statements to the press that it is considering filing a petition to review EPA's selection of the 10 ug/l decision, believing

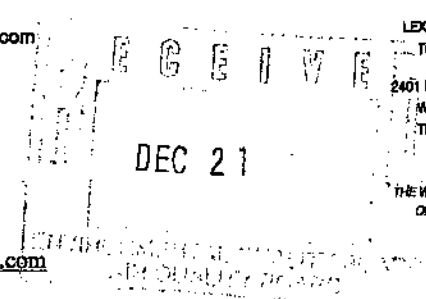
1144 MARKET STREET  
WHEELING, WEST VIRGINIA 26003  
TELEPHONE 304-233-4000

1089 18TH STREET  
DENVER, COLORADO 80284  
TELEPHONE 303-390-0003

176 EAST MAIN STREET  
LEXINGTON, KENTUCKY 40588  
TELEPHONE 606-256-9500

2401 PENNSYLVANIA AVENUE N.W.  
WASHINGTON, D.C. 20037  
TELEPHONE 202-973-0200

MEMBER OF LEX MUNDI  
THE WORLD'S LEADING ASSOCIATION  
OF INDEPENDENT LAW FIRMS.

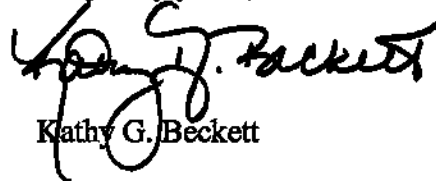


that it could be lower. As was presented during the public hearing on this rule, the environmental community and NRDC are pushing for a 3 ug/l MCL. On the other side of the debate over this proposal, representatives of the National Rural Water Association predict that litigation will ensue as the result of the severe financial impact this rule will have on individual households and rural water supplies, especially those in small communities. EPA adopted a policy that families can afford an annual increase equal to 2.5 percent of the nation's median income, or \$770 per year. Using updated federal Census Bureau data, the national median income is \$37,005; 2.5 percent of which is \$925 per household. The West Virginia median income is \$27,432; 2.5 percent of which equals \$685 per household. In poor rural communities the high-end cost of this rule ranges from EPA's estimated \$30/month rate increase -- to state engineers' estimates of \$200/month rate increase. The rule is lacking in small community flexibility provisions which will cause significant impacts on rural states like West Virginia. These and other issues continue to be of significant concern with regard to EPA's proposed arsenic drinking water standard.

Before moving well ahead of EPA and the predicted litigation over this standard, it is proposed that the Board delay adoption of this yet to be final rulemaking. As the arsenic MCL is proposed, the compliance date is 2006. With this delay built into the proposed arsenic MCL, it is not unreasonable to recommend that the Board delay adoption of this proposal to allow the national debate to ensue. If EPA does take final agency action soon, and litigation is initiated, the Board will have ample time to act and adopt the final arsenic MCL well in advance of year 2006 or whatever compliance date is ultimately selected.

The Chamber supports the development of a thorough and comprehensive groundwater standards program. The Chamber also supports the lawful development of that program and urges the Board to adopt an appropriate procedure for implementing the WV Groundwater Protection Act.

Very truly yours,



Kathy G. Beckett

cc: Mr. Stephen G. Roberts  
President  
WV Chamber of Commerce

Dr. Edward M. Snyder  
P.O. Box 987  
Shepherdstown, WV 25443

Dr. Charles Jenkins  
432 Wilburn Street  
Morgantown, WV 26505

Dr. David E. Samuel  
1 Harvest Drive  
Morgantown, WV 26508

Dr. Cameron Hackney  
Office of the Dean and Director  
1170 Agricultural Sciences Building  
PO Box 6108  
Morgantown, WV 26506-6108

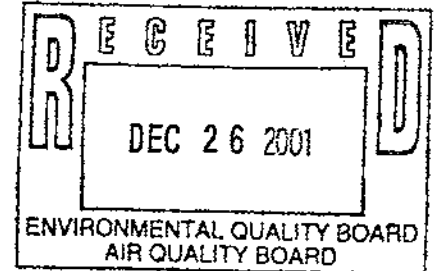
# Sierra Club

## West Virginia Chapter

P. O. Box 4142  
Morgantown, WV 26504

Dec. 19, 2001

Dr. Ed Snyder  
W.Va. Environmental Quality Board  
1615 Washington St., East  
Charleston, WV



RE: Amendments to 46CSR12 establishing standards for arsenic in ground water

Dear Dr. Snyder:

The West Virginia Chapter of the Sierra Club urges that the Board adopt a proposed ground water quality standard for arsenic of 0.003 mg/liter (3 ppb). In spite of our earlier comments (letter of June 27, 2001) regarding a 10 ppb standard, we now find that new evidence has become available justifying the more stringent standard. This evidence can best be summarized in the recent report of the National Academy of Sciences (Board on Environmental Studies and Toxicology. 2001. Arsenic in drinking water: 2001 update. National Academy Press. Washington DC. 244 p. Available at: <http://www.nap.edu/books/0309076293/html/>).

This is an update of the 1999 National Academy of Sciences report on arsenic on which we relied for the June 27 comments and provides the substantive basis for recommending the more stringent standard. Specifically, this report documents significantly higher risk estimates for various cancers than had been documented in earlier reviews, and further, this report documents the scientific consensus that both epidemiological data and modeling estimates are adequate to support the higher risk conclusions.

### Legal Basis for a More Stringent Standard

West Virginia ground water quality standards are to be established at levels not to exceed the Maximum Contaminant Levels (MCLs) adopted by the USEPA pursuant to the federal Safe Drinking Water Act (22-12-4 (b)). Furthermore, the Board may set standards for contaminants more stringent than MCLs "where it finds such standards are necessary to protect drinking water use where scientifically supportable evidence reflects factor unique to West Virginia or some area thereof, or to protect other beneficial uses of ground water". We believe that the National Academy of Sciences report, and the EPA final rule provide the basis, indeed can lead to no other conclusion than, that the ground water standard for arsenic should be more stringent than the MCL. We are offering the following as "scientifically supportable evidence" to support the finding that a more stringent standard is "necessary to protect drinking water use... or to protect other beneficial uses of ground water"

*(Note: The arguments from the WV Chamber of Commerce and other industry representatives that a more stringent standard may be adopted ONLY if it "reflects factors unique to West Virginia..." are misleading and misrepresent the language in state code. The*

*relevant section does NOT use the word "only" as represented in their testimony, but specifically includes the "unique factors" as one of a couple alternatives to be considered in deciding whether to establish a more stringent standard. These representatives may have confused the provisions of the ground water statute with clean air statutes where such language does restrict standard setting. But the Legislature specifically recognized the need to take a more preventative approach to ground water and the language of 22-12-4 gives more discretion to EQB in setting more stringent ground water standards.)*

The basis for the proposed ground water standard of 10 ppb is the EPA's new MCL of 10 ppb for arsenic. However, it is important to note that EPA has also established an MCL Goal of zero for arsenic. The Safe Drinking Water Act requires that EPA set the MCL at a level as close as feasible to the MCLG, but gives EPA discretion to set an alternative MCL when the costs of treatment outweigh the health benefits. EPA in its final rule-making (available at: [http://www.epa.gov/safewater/ars/arsenic\\_finalrule.html](http://www.epa.gov/safewater/ars/arsenic_finalrule.html)) concluded that an MCL of 3 ppb was technically feasible, but EPA chose an MCL of 10 primarily because treatment costs exceeded benefits at levels below 10 ppb. Thus, the 10 ppb level was chosen, not because it was protective of human health for drinking water purposes, but because it was economically infeasible to establish a more stringent level. EPA recognized that such an exception to strictly health-based drinking water standards is highly unusual, and has applied similar discretion only one other time under the Safe drinking Water Act. This makes the 10 ppb MCL relatively unique, and provides grounds for a serious legal challenge to claim that the 3 ppb level should be the appropriate, technically feasible, health-based MCL.

However, from the standpoint of West Virginia's ground water standards, treatment costs to drinking water supply systems can be avoided by preventing contamination in the first place. Thus, these avoided drinking water treatment "costs" should more appropriately be classed as "benefits" in a cost-benefit analysis for ground water. The use of a 10 ppb drinking water MCL that is based on cost/benefit analysis of treating drinking water is simply inappropriate for a ground water standard and is scientifically and economically unjustified. In fact, the WV ground water standards are specifically intended to be "prevention-based" in recognition of the significant costs associated with cleaning ground water once contamination has occurred. Thus, the rationale used by EPA to set an MCL at 10 ppb is inappropriate for use for a WV Ground water standard.

The legal rationale that should be used for setting a West Virginia ground water standard is the one used by EPA in setting the federal MCLG at zero, that is, prevention is cheaper than remediation.

*Note: The National Drinking Water Advisory Committee reviewed EPA's economic assessment (available at: <http://www.epa.gov/safewater/ars/ndwac-arsenic-report.pdf>) and, although generally supportive of EPA's approach, described uncertainties in EPA cost estimates, implying that treatment costs may be higher than estimated by EPA. Thus, from a ground water protection standpoint, the benefits of a more stringent standard, which includes both reduced health impacts AND avoided treatment costs, could be even more substantial.*

### **Scientific Basis for a More Stringent Standard**

EPA's risk assessment identifies maximum likelihood estimates of excess lifetime risks for lung and bladder cancer. The National Academy of Sciences report concurs that these are the major drivers for health impacts. The cancer risks for arsenic at 3 ppb are approximately 1 in 1,000; while the risks at 10 ppb are approximately 3 times greater. The National Academy of

Sciences identified several uncertainties that may increase or decrease the estimate of the true risk by a factor of two or three, but generally agreed that these were reasonable estimates.

What the EQB should consider is the overall magnitude of these risks. Cancer risks grater than 1 in one million are often considered unacceptably high, yet these levels equate to 1000 to 3000 per million. **Regardless of how we fiddle with the statistics, there are few decisions that EQB will make that will address such an imminent threat of death and disease for so many West Virginians.**

West Virginia does have some unique characteristics when it comes to ground water. We are often described as the most rural state in the nation, with a higher proportion of our residents living outside urban areas than any other state. Over 50 percent of the state's population depends on ground water for daily drinking water supplies, and in rural areas, 90 % use ground water wells and springs for drinking water supplies (Ferrell, G. M. 1987. National Water Summary 1986. Water Supply Paper 2325, US Geological Survey). Thus, the arsenic standard is of direct relevance to the health of a large portion of the population.

Most of the state's ground water currently has relatively low levels of arsenic. Data are relatively sparse, however two references describe arsenic concentrations in the region. Paybins, et al. (2000. Water Quality in the Kanawha-New River Basin. US Geological Survey Circular 1204) reported that 42 of 60 wells sampled had arsenic concentrations below the 1 ppb detection limit and more than 90 % had arsenic levels below 3 ppb.

Eleven percent of West Virginia wells contained between 4 and 9 ppb arsenic, and an additional 7. % in excess of 10 ppb in a broader survey of 169 West Virginia water wells, (Focazio, M.J., Welch, A.H., Watkins, S.A., Helsel, D.R., and Horn, M.A., 1999, A retrospective analysis on the occurrence of arsenic in ground-water resources of the United States and limitations in drinking-water-supply characterizations: USGS Water-Resources Investigation Report 99-4279, 21 p. available at: [http://co.water.usgs.gov/trace/data/arsenic\\_may2000.txt](http://co.water.usgs.gov/trace/data/arsenic_may2000.txt)). While most of the wells with the higher arsenic levels were either unused or were single household wells, almost half of the wells in the 4-9 ppb range were designated as public water supplies. Thus, a larger population is exposed and the cancer risks from wells with 4-9 ppb are significant.

What these data mean is that, although the areas directly affected are currently relatively small, prevention of further arsenic contamination is important and will have significant benefits for state residents.

### **Economic Implications of a More Stringent Standard.**

EPA estimated costs of treating arsenic in drinking water supplies at \$32 per year per household, but recognized that costs for households on small water supplies may be much higher, \$327 for households on systems serving fewer than 100 people EPA 2001. Final rule-making, available at: [http://www.epa.gov/safewater/ars/arsenic\\_finalrule.html](http://www.epa.gov/safewater/ars/arsenic_finalrule.html)). Solely because treatment costs could be so high. EPA used its discretionary authority under the Safe Drinking Water Act to relax the MCL from the technically feasible level of 3 ppb to the economically feasible level of 10 ppb.

It is likewise solely because treatment costs are so high, especially for small public and individual household water supply systems, that the EQB should establish the more stringent 3

ppb level as its ground water standard. Such a standard would provide needed protection without being unduly restrictive of other economic development. In those areas where natural background levels already exceed 3 ppb, permit applicants need only demonstrate the natural background level to use that as a higher standard. And for those industries which can justify the need to pollute ground water to higher levels, the ground water statute provides a variance mechanism where such higher pollution levels may be allowed.

*Note: the arguments from representatives of the WV Chamber of Commerce, that a standard should be set at 50 ppb until the federal MCL becomes enforceable in 2006, are short-sighted and economically absurd. Such a proposal would allow groundwater contamination to levels over the next 5 years that would REQUIRE remediation after 2006, a prospect that would bankrupt most companies. Even the WV Chamber must recognize that prevention of ground water contamination is invariably cheaper than remediation, yet that is specifically the avenue their representatives appear to be inflicting on the clients they claim to represent.*

In summary, we believe that there is a clear legal, scientific and economic basis for the ground water standard for arsenic to be set at 3 ppb. We believe that the EQB has an obligation under state law to set the standard at a level that is protective of public health.

Sincerely,



James Kotcon  
State Government Programs Chair  
West Virginia Sierra Club



**§22-12-4. Authority of environmental quality board to promulgate standards of purity and quality.**

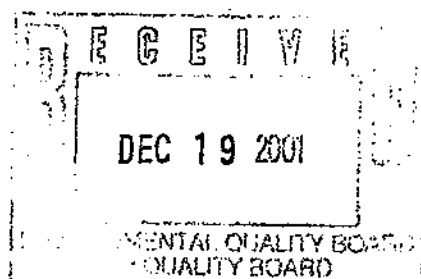
(a) The environmental quality board has the sole and exclusive authority to promulgate standards of purity and quality for groundwater of the state and shall promulgate such standards following a public hearing within one year from the effective date of this article, by legislative rules in accordance with the provisions of chapter twenty-nine-a of this code.

(b) Such standards shall establish the maximum contaminant levels permitted for groundwater, but in no event shall such standards allow contaminant levels in groundwater to exceed the maximum contaminant levels adopted by the United States Environmental Protection Agency pursuant to the federal Safe Drinking Water Act. The board may set standards more restrictive than the maximum contaminant levels where it finds that such standards are necessary to protect drinking water use where scientifically supportable evidence reflects factors unique to West Virginia or some area thereof, or to protect other beneficial uses of the groundwater. For contaminants not regulated by the federal Safe Drinking Water Act, standards for such contaminants shall be established by the board to be no less stringent than may be reasonable and prudent to protect drinking water or any other beneficial use. Where the concentration of a certain constituent exceeds such standards due to natural conditions, the natural concentration is the standard for that constituent. Where the concentration of a certain constituent exceeds such standard due to human-induced contamination, no further contamination by that constituent 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.

(c) The standards of purity and quality for groundwater promulgated by the board shall recognize the degree to which groundwater is hydrologically connected with surface water and other groundwater and such standards shall provide protection for such surface water and other groundwater.

(d) In the promulgation of such standards the board shall consult with the division of environmental protection, department of agriculture and the bureau of public health, as appropriate.

(e) Any groundwater standard of the board that is in effect on the effective date of this article shall remain in effect until modified by the board. Notwithstanding any other provisions of this code to the contrary, the authority of the board to adopt standards of purity and quality for groundwater granted by the provisions of this article is exclusive, and to the extent that any other provisions of this code grant such authority to any person, body, agency or entity other than the board, those other provisions are void.



*This Standard was  
Revised to the Board  
James Kotcan on  
December 19, 2001  
During the public  
Hearing*

following tasks in response to its charge:

- \* Determine whether data from the 1983, 1989, and 1992 Taiwanese studies remain the best data for dose-response assessment and risk estimation.
- \* Assess whether the EPA analysis appropriately incorporates popul-

## Summary

The U.S. Environmental Protection Agency (EPA) is required under the Safe Drinking Water Act (SDWA) to establish the concentrations of contaminants permitted in public drinking-water supplies. The SDWA requires EPA to set two specific concentrations for each designated contaminant in drinking water—the maximum contaminant level goal (MCLG) and the maximum contaminant level (MCL). The MCLG is a health goal to be based on the best available, peer-reviewed scientific data. It is to be set at a concentration at which no known or anticipated adverse health effects occur, allowing for adequate margins of safety. The MCLG is not a regulatory requirement and might not be attainable with current technology or analytical methods. In contrast, the MCL is an enforceable standard that is required to be set as close to the MCLG as is technologically feasible, taking cost into consideration.

Following the 1976 enactment of the SDWA, EPA proposed, as part of the National Interim Primary Drinking Water Standards, an interim MCL of 50 micrograms per liter ( $\mu\text{g/L}$ ) for arsenic. The U.S. Public Health Service originally set the 50- $\mu\text{g/L}$  standard in 1942. In 1988, EPA conducted a risk assessment for arsenic in drinking water and, in 1996, requested that the National Research Council (NRC), the operating arm of the National Academy of Sciences and the National Academy of Engineering, independently review the scientific database and evaluate the scientific validity of that risk assessment. In response to that request, the NRC published *Arsenic in Drinking Water* in 1999. Following that report, EPA proposed an arsenic standard

2      *ARSENIC IN DRINKING WATER: 2001 UPDATE*

of 5  $\mu\text{g/L}$  in the *Federal Register*. After review by EPA's Science Advisory Board (SAB) and a period of public comment, EPA issued a pending standard of 10  $\mu\text{g/L}$  on January 22, 2001. That pending standard was primarily based on dose-response models and extrapolation from a cancer study of a Taiwanese population exposed to high concentrations of arsenic in its drinking water. On March 23, 2001, EPA published a notice that delayed the effective date of the arsenic rule pending further study of options for revising the MCL for arsenic. To incorporate the most recent scientific research into its decision, EPA's Office of Water subsequently requested that the NRC independently review studies on the health effects of arsenic published since the 1999 NRC report.

### CHARGE TO THE SUBCOMMITTEE

In response to EPA's request, the NRC assigned the project to the Committee on Toxicology (COT) and convened the Subcommittee to Update the 1999 *Arsenic in Drinking Water Report*. The members selected by the NRC to serve on this subcommittee have expertise in epidemiology, cellular and molecular toxicology, biostatistics and modeling, risk assessment, uncertainty analyses, and public health. Five of the nine members of the subcommittee also served on the earlier NRC Subcommittee on Arsenic in Drinking Water. The 2001 subcommittee was charged with the task of preparing a report updating the scientific analyses, uncertainties, and findings of the 1999 report on the basis of relevant toxicological and health-effects studies published and relevant data developed since the 1999 NRC report and to evaluate the analyses subsequently conducted by EPA in support of its regulatory decision-making for arsenic in drinking water. The subcommittee was charged and constituted to address only scientific topics relevant to toxicological risk and health effects of arsenic. It was not asked to address questions of economics, cost-benefit assessment, control technology, exposure assessment in U.S. populations, or regulatory decision-making. The subcommittee performed the following tasks in response to its charge:

- Determine whether data from the 1988, 1989, and 1992 Taiwanese studies remain the best data for dose-response assessment and risk estimation.
- Assess whether the EPA analysis appropriately incorporates popula-

tion differences, including diet, when extrapolating from the Taiwanese study population to the U.S. population.

- Evaluate whether the dose-response analysis conducted by EPA and any other available analyses of more recent data are adequate for estimating an effective dose for a 1% response ( $ED_{01}$ ).
- Determine whether EPA's analysis appropriately considers and characterizes the available data on the mode of action of arsenic and the information on dose-response relationships and uncertainties when assessing the public-health impacts.
- Determine whether EPA's risk estimates at 3, 5, 10, and 20  $\mu\text{g/L}$  are consistent with available scientific information, including information from new studies.

#### THE SUBCOMMITTEE'S APPROACH TO ITS CHARGE

The subcommittee considered several hundred new scientific articles on arsenic published since the 1999 NRC report. It also heard presentations from the EPA administrator; other EPA representatives; the EPA Science Advisory Board; other scientists with expertise in arsenic toxicity; federal, state, and local government agencies; trade organizations; public-interest groups; and concerned individuals.

The subcommittee evaluated the arsenic hazard assessment conducted by EPA for the pending arsenic standard published in the January 22, 2001, *Federal Register* and considered the comments made in the EPA Science Advisory Board's December 2000 report on the previously proposed rule. The subcommittee was not asked to assess U.S. population exposures. It addressed scientific issues concerning the hazards from consumption of drinking water contaminated with arsenic. It did not comment or make recommendations on risk management or policy decisions. By definition, determining an MCL requires policy considerations, including risk-management options and cost-benefit analyses, which are beyond the scope of the charge to this subcommittee.

It should also be noted that the NRC was charged with updating the 1999 report *Arsenic in Drinking Water*, not with reviewing its own report. Therefore, the subcommittee has taken that report as a starting point in its evaluation of more recent information.

## THE SUBCOMMITTEE'S EVALUATION

### Epidemiological (Human) Studies

The 1999 NRC report concluded that arsenic is associated with both cancer and noncancer effects. At that time, there was sufficient evidence to conclude that ingestion of arsenic in drinking water causes skin, bladder, and lung cancer. The internal cancers (bladder and lung) were considered to be the main cancers of concern, and there was sufficient evidence from large epidemiology studies in southwestern Taiwan of a dose-response relationship between those cancers and exposure to arsenic in drinking water.

Since the publication of the 1999 report, evidence has increased that chronic exposure to arsenic in drinking water might also be associated with an increased risk of high blood pressure and diabetes. Pending further research that characterizes the dose-response relationship for high blood pressure and diabetes, the magnitude of possible risk that exists at low levels is not quantifiable. Nevertheless, even small increases in relative risk for these conditions at low dose could be of considerable public-health importance. This potential impact should be qualitatively considered in the risk-assessment process. Some evidence also published since the 1999 NRC report shows an association between arsenic ingestion and potentially adverse reproductive outcomes and noncancer respiratory effects. However, those data require confirmation.

Four major epidemiological studies have been published since the 1999 NRC report in which the association between internal cancers and arsenic ingestion in drinking water has been investigated. The data from three of those studies (one in Chile, one in northeastern Taiwan, and one in southwestern Taiwan) confirm the association between internal cancers and arsenic exposure through drinking water. Another study (in Utah) did not demonstrate such an association.

The strengths of the recent studies from Chile and northeastern Taiwan include the evaluation of some potential confounding factors affecting the observed association between arsenic ingestion and cancer in newly diagnosed cases. Although the recent study in southwestern Taiwan is limited in its exposure assessment, it addresses the issue of lifestyle differences (e.g., diet, smoking) that might have influenced mortality rates in the area where arsenic is endemic. In that study, cancer rates in the area of southwestern Taiwan where arsenic is endemic were compared with cancer rates in counties

neighboring the area (where the lifestyle is similar) and with rates for all of Taiwan. The arsenic-related risk estimates based on the two different comparison populations did not differ substantially, indicating that lifestyle differences between the region of southwestern Taiwan where arsenic is endemic and the rest of Taiwan do not substantially affect estimates of the risk of cancers from ingesting arsenic in drinking water.

The study in Utah was the first large-scale study to attempt to consider the association between internal cancers (bladder and lung) and arsenic exposure through drinking water in a U.S. population. However, the subcommittee concluded that the limitations of the Utah study currently preclude its use in a quantitative risk assessment. One limitation was the unconventional method used in that study to characterize exposure. Furthermore, in contrast to the southwestern Taiwan study where lifestyle differences do not appear to influence relative risk of cancer from arsenic in drinking water, the Utah study used a comparison group with differences in lifestyle characteristics from the study population. The study population was composed of individuals with religious prohibitions against smoking, and the unexposed comparison group was the overall population of Utah, where such religious prohibitions are not practiced by all residents.

The other recent studies of arsenic in humans, taken together with the many studies discussed in the 1999-NRC report, provide a sound and sufficient database showing an association between bladder and lung cancers and chronic arsenic exposure in drinking water, and they provide a basis for quantitative risk assessment. The subcommittee concludes that the early data from southwestern Taiwan remain appropriate for use in dose-response assessment of arsenic in drinking water. In addition, recent studies increase the weight of evidence for an association between internal cancers and arsenic exposure through drinking water. In particular, data from northern Chile on risk of lung cancer incidence are also appropriate for use in a quantitative risk assessment.

### **Metabolism and Mode-of-Action Studies**

When evaluating the hazards from arsenic in drinking water, it is important to evaluate data on the fate of arsenic in the body (i.e., its metabolism) and how it causes its adverse effects (i.e., its mode of action). Arsenic is metabolized in the body by reduction and methylation reactions. The main product of those reactions, dimethylarsinic acid, is readily excreted from the

6 ARSENIC IN DRINKING WATER: 2001 UPDATE

body in the urine, but recent data indicate that reactive and toxic intermediate metabolites may be distributed to tissues and excreted in urine. The mechanisms responsible for the adverse effects associated with arsenic, including some types of cancer, cardiovascular disease, and diabetes, probably occur through multiple independent and interdependent mechanisms. The shape of the dose-response curve for one type of adverse effect might have little relevance to the shape for a different effect. Likewise, the shape of the dose-response curve for disruption of a specific biochemical pathway by arsenic is not necessarily relevant to the overall shape of the dose-response curve for a complex disease process, such as tumor development following chronic exposure.

Biostatistical approaches are required in a dose-response assessment to extrapolate from the lowest concentrations of arsenic at which increases in cancer are observed in a study population to lower concentrations to which the study population of interest is exposed. The mode of action by which a chemical causes cancer can sometimes determine how human or animal data should be extrapolated and used to evaluate allowable drinking-water contaminant concentrations. If an agent acts directly to cause DNA damage, it is standard practice for the estimated risk of cancer to be extrapolated in a *linear* fashion from the lowest measured exposure to zero (i.e., below the range of observations, risk is assumed to be directly proportional to the exposure.) If an agent acts indirectly, the possibility of *sublinear* extrapolation is considered (i.e., such extrapolation has sometimes been interpreted to indicate a "threshold" for effects.) In the absence of definitive mode-of-action data, EPA's general policy is to use a linear extrapolation from the observed data range for its carcinogenic risk assessments. After concluding that the mode-of-action data were inadequate to define the shape of the curve, EPA made a policy-based decision to use a default assumption of linearity.

Although a large amount of research is available on arsenic's mode of action, the exact nature of the carcinogenic action of arsenic is not yet clear. Therefore, the subcommittee concludes that the available mode-of-action data on arsenic do not provide a biological basis for using either a linear or nonlinear extrapolation. Furthermore, in laboratory studies, cellular effects of arsenic occur at concentrations below those found in the urine of people who had ingested drinking water with arsenic at concentrations as low as 10 µg/L. Therefore, even if the curve is sublinear at some point (e.g., if a threshold exists), the available data showing cellular effects at arsenic concentrations in the range of those measured in U.S. populations suggest that any hypotheti-



cal threshold would likely occur below concentrations that are relevant to U.S. populations.

### Variability and Uncertainty in an Arsenic Risk Assessment

Variability (differences in outcomes due to factors contributing to risk) and uncertainty (resulting from lack of knowledge in the underlying science) should be considered in an arsenic risk assessment. Differences in the exposures of individuals and populations and differences in responses to a given exposure result in variability in a response. Often, that variability can be measured and quantified, but in many cases, assumptions must be made about many of the variables when information is lacking.

Sources of variability in an arsenic risk assessment include exposure differences in subpopulations (e.g., infants and children), and variability in arsenic metabolism. Individual exposures to arsenic can be affected by a number of factors, particularly the variability in the amount of arsenic in drinking water, water-ingestion rates, arsenic content in different foods, food-consumption rates, and other characteristics of the exposed population, such as sex, age, and body weight. EPA made assumptions with regard to intake of drinking water (including that for cooking) and arsenic through food to account for difference between southwestern Taiwan and the United States when estimating its risks. The basis for those assumptions, however, is not clear and adds to the uncertainty in the risk estimates.

It has been argued that poor nutrition might make the Taiwanese population more susceptible to the effects of arsenic than the U.S. population and that generalizing from the Taiwan population to other populations with different diets and, possibly, nutritional status is inappropriate. However, the subcommittee concludes that there is no evidence of nutritional factors that could account for the high rate of cancer seen in the arsenic-exposed Taiwanese population. Furthermore, similar increases in risk have been associated with chronic arsenic exposure in many other countries, including Chile and Argentina, where poor nutrition and low-protein diets are not issues. Therefore, the subcommittee concludes that the risk estimates based on the southwestern Taiwanese data are not substantially affected by differences in nutritional status or diet.

The subcommittee evaluated data to determine whether there is evidence that infants and children are more susceptible than adults to the effects of

arsenic. There are no reliable data that indicate heightened susceptibility of children to arsenic. The subcommittee agrees that infants and children might be at greater risk for cancer and noncancer effects because of greater water consumption on a body-weight basis. However, cancer remains the health end point of concern, and the lifetime cancer risk estimates account for the greater childhood exposures by deriving risk estimates from epidemiology studies of cancer among populations exposed to arsenic since birth, as was the case for most of the populations in which the association between arsenic and cancer was studied.

Considerable variability in metabolism of arsenic in humans is reflected, in part, by differences in the pattern of excreted arsenic metabolites in the urine. Because arsenic metabolites differ in their toxicity, variation in the metabolism of arsenic is likely to be associated with variations in susceptibility to arsenic. Genetic factors, age, the dose of arsenic received, and simultaneous exposure to other compounds, such as micronutrients, appear to be important considerations in arsenic metabolism. The fact that the metabolism of arsenic varies markedly between individuals should be considered in an arsenic risk assessment; however, at the present time it is uncertain how to account for that variability in a quantitative dose-response analysis.

The method used to characterize arsenic dose in a study is a source of uncertainty in arsenic dose-response assessment. The measurement of dose (e.g., cumulative exposure, lifetime average exposure, or peak exposure) that is most closely correlated with cancer outcomes is not well established. If an incorrect measurement of dose is used, then the relationship between dose and effect might be obscured. The choice of the dose measurement affects the interpretation of an epidemiological study and the choice of the dose-response model.

Smoking is a well-recognized risk factor for lung and bladder cancer, the two internal cancers mostly strongly associated with arsenic ingestion. There are no data available to indicate that smoking is a significant confounder of the observed association between exposure to arsenic in drinking water and an increase in lung or bladder cancer. However, several of the epidemiological studies reviewed by the subcommittee suggest the possibility of an interaction between smoking and arsenic on the risk of lung cancer or bladder cancer, but this potential effect requires further confirmation and characterization. If an interaction between smoking and arsenic were to exist, then differences in smoking prevalence between populations might influence the impact of using relative risks from one population to derive risk estimates in another population. The direction of this impact could be in either direction, that is,

it could theoretically either increase or decrease the risk estimates, depending on the relative smoking prevalences.

### Quantitative Evaluation of Arsenic Toxicity

For the southwestern Taiwanese study, risks can be estimated either by comparing cancer mortality in the human study population exposed to arsenic with cancer mortality in the general Taiwanese or the regional population (i.e., a mostly unexposed external comparison group) or by making comparisons within the study group between high- and low-exposed individuals (i.e., internal comparison group). The approach of using an unexposed external comparison population is classically used in the analysis of data similar to those available from Taiwan and has the advantage of minimizing exposure misclassification (e.g., classifying low-exposed individuals in the study population as unexposed). A potential disadvantage of using an external comparison group is that the analysis can be biased if the study population differs from the comparison population in important ways. Because of concerns about differences between the unexposed external comparison population and the study population in southwestern Taiwan, EPA used an internal comparison population in its dose-response assessment. As discussed above, however, results of a recent study in southwestern Taiwan indicate that differences in lifestyle factors between the region of southwestern Taiwan where arsenic is endemic and the rest of Taiwan do not appear to affect the risk of cancer from arsenic in drinking water. Therefore, the subcommittee derived its estimates of cancer risk by comparing the arsenic-exposed southwestern Taiwanese population with an external population, and it recommends that approach for arsenic risk assessments.

The subcommittee estimated  $ED_{01}$  values (i.e., the exposure dose at which there is a 1% response in the study population) for various studies using several different types of statistical models. The estimated  $ED_{01}$  values from the Chilean study on lung cancer ranged from 5 to 27  $\mu\text{g/L}$ , depending on the exposure data used. The  $ED_{01}$  values estimated for the southwestern Taiwanese study ranged from 33 to 94  $\mu\text{g/L}$  for lung cancer, and from 102 to 443  $\mu\text{g/L}$  for bladder cancer, depending on the choice of statistical model. The previous NRC Subcommittee on Arsenic in Drinking Water estimated  $ED_{01}$  values for male bladder cancer mortality of 404 to 450  $\mu\text{g/L}$ , depending on the model used. Those values are approximately within the range of  $ED_{01}$  values estimated by this subcommittee. However, because the  $ED_{01}$  values reported

10 *ARSENIC IN DRINKING WATER: 2001 UPDATE*

by the previous and current NRC subcommittees were derived through different biostatistical approaches, they are not directly comparable. The ED<sub>01</sub> values in the 1999 NRC report reflect a 1% increase relative to background cancer mortality in Taiwan, whereas the current subcommittee's approach reports ED<sub>01</sub> values based on a 1% increase relative to the background cancer mortality in the United States. The differences between these two approaches are discussed in a later section.

The subcommittee investigated the extent of the variability among different types of statistical models using a model-weighting approach and also assessed the impact of differences in background incidence rates between different populations when using relative risks in a risk assessment. In addition, statistical analyses were conducted to investigate the sensitivity of the resulting risk estimates to differences in water intakes and measurement error.

### Research Needs

More research is needed on the possible association between arsenic exposure and cancers other than skin, bladder, and lung, as well as noncancer effects, particularly impacts on the circulatory system (high blood pressure, heart disease, and stroke), diabetes, and reproductive outcomes. Future studies of the relationships between arsenic ingestion and both noncancer and cancer outcomes should be designed to have sufficient power to determine risks in potentially susceptible subpopulations, including children; they should consider factors (e.g., smoking, diet, genetics) that could influence susceptibility to arsenic; and they should collect detailed exposure information, all in an effort to reduce uncertainty in the risk assessment. In addition, more information is needed on the variability in metabolism of arsenic among individuals and the effect of that variability on an arsenic risk assessment. Laboratory and clinical research is also needed to define the mechanisms by which arsenic induces cancer to clarify the risks at lower doses.

### OVERALL CONCLUSIONS

There is a sound database on the carcinogenic effects of arsenic in humans that is adequate for the purposes of a risk assessment. The subcommittee concludes that arsenic-induced internal (lung and bladder) cancers should continue to be the principal focus of arsenic risk assessment for regulatory

decision making, as discussed and as recommended in the 1999 NRC report. The human data from southwestern Taiwan used by EPA in its risk assessment remain the most appropriate for determining quantitative lifetime cancer risk estimates. Human data from more recent studies cited in this report, especially those from Chile, provide additional support for the risk assessment. In view of new data from southwestern Taiwan, the subcommittee recommends using an external comparison population, rather than high- and low-exposure groups within the exposed population, when analyzing the earlier studies from southwestern Taiwan. The observed data should be analyzed, using a model that is biologically plausible and provides a reasonable statistical fit to the data. For the southwestern Taiwanese cancer data, this model is the additive Poisson model with a linear term used for dose. The available data on the mode of action of arsenic do not indicate what form of extrapolation (linear or nonlinear) should be used below arsenic concentrations at which cancers have been observed in human studies. As discussed previously, there are no experimental data to indicate the concentration at which any theoretical threshold might exist. Therefore, the curve should be extrapolated linearly from the  $ED_{01}$  to determine risk estimates for the potential concentrations of concern (3, 5, 10, and 20  $\mu\text{g/L}$ ). The choice for the shape of the dose-response curve below the  $ED_{01}$  is, in part, a policy decision. It should be noted, however, that the Taiwanese and other human studies include data on exposures at arsenic concentrations relatively close to some U.S. exposures. Consequently, the extrapolation is over only a relatively small range of arsenic concentrations. The uncertainty associated with the assumptions in the analyses was discussed earlier.

The subcommittee's estimates of theoretical lifetime excess risk of lung cancer and bladder cancer for U.S. populations at different concentrations of arsenic in drinking water are presented in Table ES-1. These are maximum-likelihood (central-point) risk estimates, not upper-bound (worst-case) estimates.

Because a relative risk approach using data from Taiwan and Chile was used to project risks in the U.S. population, differences in the background rate of the disease can have an important impact on the overall risk estimate. The background incidence of lung or bladder cancer in Taiwan is lower than that in the United States; therefore, the projected risk estimates for those cancers will also be lower in Taiwan than in the United States. The corresponding risks estimated using Taiwanese background cancer rates would be approximately 2-fold lower for female bladder cancer, 3-fold lower for male bladder cancer, 3-fold lower for female lung cancer, and 2-fold lower for male lung

TABLE S-1 Theoretical Maximum-Likelihood Estimates<sup>a</sup> of Excess Lifetime Risk (Incidence per 10,000 People) of Lung Cancer and Bladder Cancer for U.S. Populations Exposed at Various Concentrations of Arsenic in Drinking Water<sup>b,c</sup>

Arsenic Concentration (µg/L)	Bladder Cancer		Lung Cancer	
	Females	Males	Females	Males
3	4	7	5	4
5	6	11	9	7
10	12	23	18	14
20	24	45	36	27

<sup>a</sup> The maximum-likelihood estimate is the central point estimate from the distribution of risk calculated using a particular statistical model and data set (see note b).

<sup>b</sup> Estimates were calculated using data from individuals in the region of southwestern Taiwan where arsenic is endemic, data from an external comparison group from the overall southwestern Taiwan area, and U.S. age-adjusted cancer incidence data. The risks are estimated using what the subcommittee considered reasonable assumptions: a U.S. resident weighs 70 kg, compared with 50 kg for the typical Taiwanese, and the typical Taiwanese drinks just over 2 liters of water per day, compared with 1 liter per day in the United States; therefore, it assumes that the Taiwanese exposure per kilogram of body weight is approximately 3 times that of the United States. It is possible to get higher and lower estimates using other assumptions. Risk estimates are rounded to the nearest integer. All 95% confidence limits are less than ±12% of the maximum-likelihood estimate and are not presented. Those confidence limits reflect statistical variability in the population incidence estimates only, a narrow range that primarily reflects the relatively large sample size of the data modeled. As such, they are not indicative of the true uncertainty associated with the estimates.

<sup>c</sup> If Taiwanese baseline cancer rates are used instead of U.S. data to estimate the risk, the corresponding risk estimates (incidence per 10,000) for arsenic at concentrations of 3, 5, 10, and 20 µg/L of drinking water are as follows: female bladder cancer, 2, 4, 8, and 15; male bladder cancer, 2, 3, 7, and 13; female lung cancer, 2, 3, 6, and 12; and male lung cancer, 2, 3, 6, and 11.

cancer (see Table ES-1, footnote c). It should be noted that standard epidemiological practices support the use of the background incidence rate in the country of interest when comparing relative risks across different populations. However, the subcommittee members are divided in opinion on whether using the U.S. background cancer incidence rate was preferable to using the Taiwanese background rate; some members of the subcommittee felt strongly that using the U.S. background rate was the preferred approach, while others felt that there was not sufficient justification to select one background rate over the other.

At a concentration of arsenic in drinking water of 3  $\mu\text{g/L}$ , the subcommittee's theoretical lifetime risk estimates for bladder and lung cancer combined are between approximately 4 and 10 per 10,000 when risks are estimated using the Taiwan or U.S. background rates of these cancers, respectively. As discussed in Chapter 5, the subcommittee's risk estimates for lung cancer, based on the southwestern Taiwanese data and new analyses, are consistent with published risk estimates based on other data sets (e.g., Chile) and on other published analyses of the southwestern Taiwanese data. The estimates from this subcommittee are also generally consistent with the bladder cancer risk estimates presented in the 1999 NRC report. Risk estimates for lung cancer were not presented in the 1999 report.

EPA did not publish the theoretical risk estimates on which it based its analyses; its analyses were adjusted for the occurrence of arsenic in U.S. drinking water; such an analysis of arsenic concentrations in U.S. drinking-water supplies is beyond the charge to this subcommittee. Therefore, the subcommittee has compared its risk estimates to estimates calculated from the published analyses on which EPA based its risk estimates; those estimates were not adjusted for water consumption or arsenic in food in the same manner by EPA, nor by this subcommittee. The adjustments used by EPA for food and water consumption would have the effect of decreasing the risk estimates.

Even without those adjustments, the risk estimates on which EPA based its analyses are lower than this subcommittee's estimates. Several factors contribute to that difference. The subcommittee used an external comparison population, rather than an internal comparison as was done in EPA's analyses. The subcommittee also used a different statistical method from that used for the estimates on which EPA based its estimates of lifetime excess cancer risks. Also, the subcommittee has presented estimates based on both U.S. and Taiwanese background incidence data; EPA's estimates took into account only Taiwanese background incidence data. In addition, the method that the subcommittee used to adjust for arsenic in food and its assumptions regarding water intake in the United States and Taiwanese populations were different from those used by EPA in its analyses. These factors are summarized in Table 6-2.

As discussed in Chapter 6, even at the highest risk estimates made by the subcommittee, the increases in cancer due to arsenic in drinking water would be difficult to detect statistically in the U.S. population. For example, a lifetime excess risk of bladder cancer incidence in males of 45 per 10,000 would represent only 13% of the total risk for male bladder cancer in the United States from all causes. Epidemiological detection of such a risk would require

14 ARSENIC IN DRINKING WATER: 2001 UPDATE

study of a large population of individuals who consumed drinking water containing arsenic at a concentration of 20  $\mu\text{g/L}$  over an extended period of time. Detection would be further complicated by variability in the concentrations of arsenic in drinking water, the unknown distribution of other risk factors (including smoking), and the mobility of the U.S. population. Because background lung cancer mortality in the United States is almost 10-fold greater than bladder cancer mortality, it would be even more difficult to demonstrate an association of arsenic in drinking water with lung cancer risk. Therefore, although the subcommittee's risk estimates are of public-health concern, they are not high enough to be detected easily in U.S. populations by comparing geographical differences in the rates of specific cancers with geographical differences in the levels of arsenic in drinking water.

In accordance with its charge, the subcommittee has not conducted an exposure assessment, subsequent risk characterization, or risk assessment. The theoretical lifetime excess cancer risks estimated by the subcommittee and the uncertainties surrounding those estimates as presented in this report should be interpreted in a public-health context that uses an appropriate risk-management framework.

In summary, the subcommittee concludes that recent studies and analyses enhance the confidence in risk estimates that suggest chronic arsenic exposure is associated with an increased incidence of bladder and lung cancer at arsenic concentrations in drinking water that are below the current MCL of 50  $\mu\text{g/L}$ . The results of this subcommittee's assessment are consistent with the results presented in the NRC's 1999 *Arsenic in Drinking Water* report and suggest that the risks for bladder and lung cancer incidence are greater than the risk estimates on which EPA based its January 2001 pending rule.



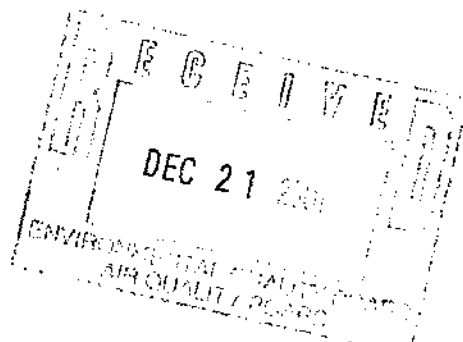


## WEST VIRGINIA RIVERS COALITION

801 N. Randolph Avenue • Elkins, West Virginia 26241 • (304) 637-7201 • www.wvrivers.org

December 21, 2001

Dr. David Samuel, Chairman  
West Virginia Environmental Quality Board  
1615 Washington St., East  
Charleston, WV 25311



Dear Dr. Samuel:

Please accept these comments from the West Virginia Rivers Coalition pertaining to the Board's proposed amendment to the legislative rule, 46 CSR 12 "Requirements Governing Groundwater Standards." We appreciate that the Board is giving the public an opportunity to provide feedback on the state's arsenic standard.

We are pleased to see that the Board is re-visiting this issue, and is considering an arsenic level that's more protective than 50 parts per billion (ppb). The health risks of arsenic are well-established, and regulators have known for decades that the 50 ppb standard is dangerous. Long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects. Given these serious health risks, the citizens of West Virginia are long overdue for a more protective arsenic level.

In our written comments on this issue dated June 28, 2001, we asked the Board to consider an arsenic level for groundwater of at least 10 ppb, if not a level that is more protective. Since then, as the Board is well aware, the National Academy of Sciences released a study in September that concludes an arsenic level of even 3 ppb could pose significant health risks. While a standard of 3 ppb presents a risk that's at least 10 times greater than EPA's highest acceptable cancer risk for drinking water contaminants, the National Academy of Sciences reports that a 3 ppb standard is feasible; in other words, the technology is available to detect and treat for arsenic at this level. It follows, then, that a 10 ppb level presents an even greater, unacceptable, cancer risk – a risk of 30 deaths per 10,000 people. A level of 10 ppb presents a risk of fatal cancer that is three times that of a 3 ppb level. We ask that the Board consider and adopt an arsenic level of 3 ppb. By doing so, the Board would save the lives of three times as many West Virginians than if it adopted the less protective arsenic standard of 10 ppb.



EPA's decision to set the arsenic standard at 10 ppb is, from our viewpoint, a move rooted more in politics than sound science and concern for the public's health. Therefore, we're hopeful that the Board will act on this shortcoming by the federal government and adopt an even more protective arsenic standard.

Additionally, there are avenues in the state groundwater standards for granting variances for this type of pollution, so an appropriately protective arsenic standard should not pose a problem for an industry that has a site-specific problem. State groundwater regulations clearly outline that the Director can grant Groundwater Quality Standard Variances where a source of pollution can't meet the state's groundwater standards. 47-57-6.1 reads in part:

*"Upon petition by any person, the Director may identify a single source or class of sources which by their nature cannot be conducted or operated in compliance with the groundwater quality standards or preventative action limits, or both, established pursuant to the Act and may grant a variance for a single source or class of sources."*

Thank you for the opportunity to comment.

Sincerely,



Nathan Fetty  
Issues Coordinator

FROM



WEST VIRGINIA  
RIVERS COALITION

801 N. RANDOLPH AVE.  
ELKINS, WV 26241  
PHONE (304) 637-7201  
FAX (304) 637-4084

TO

304-558-4116

Melissa Carte, Clerk

W.Va. Environmental Quality  
Board

SENT BY

ATTENTION:

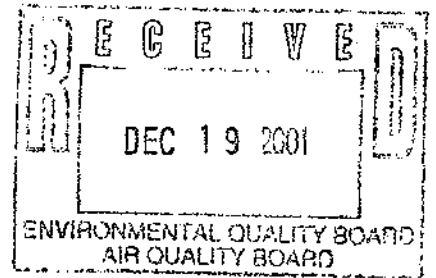
NO. PAGES  
(INCLUDING COVER)

3

MESSAGE:

Hard copy to  
follow via  
U.S. Mail.

Dr. David Samuel, Chairman  
West Virginia Environment Quality Board  
1615 Washington St.  
Charleston, W.V. 25276



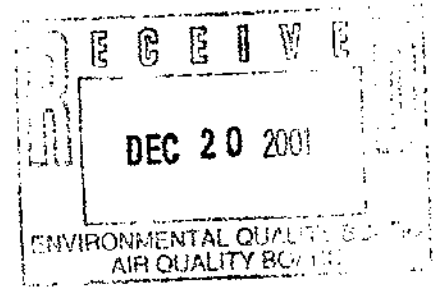
Dr. Samuel,

I am pleased that you are going to re-evaluate your recent arsenic standard. As a scientist with a master's degree in Biology, I am ~~not~~ an expert, but am fairly well informed. I am very concerned that the 10ppb standard while much better than the previous 50ppb standard is still too high. Since there is nothing to prevent the Board from going to a lower level than the federal guide line, I recommend you set the level at 3ppb/lit.

As I have been teaching Biology, Wildlife Mgt, and Environmental Earth Science for about 25 years, I have developed a deep interest in environmental concerns. The fact that my personal water supply comes from groundwater by way of a spring, as well as my many years teaching Aquatic Biology classes at a science camp, have led me to a special concern for water issues. The facts about arsenic are clear. It causes a wide variety of health concerns, even at the low concentration being discussed. Diabetes, cardiovascular disease, immunological and developmental problems have all been strongly linked to exposure. Please go with the very lowest standards. My two sons and their children have to drink water.

Sincerely,

Robert A. Mertz  
1205 Mulberry Ridge Road  
Spencer, W.V. 25276



December 19, 2001

Dr. David Samuel, Chairman  
West Virginia Environmental Quality Board  
1615 Washington Street  
Charleston WV 25311

Dear Dr. Samuel:

I respectfully submit the following comments pertaining to the West Virginia Environmental Quality Board's proposed rules for groundwater standards (46 CSR 12).

The Board has taken a positive step in deciding to re-visit the arsenic issue and consider a more protective standard than the one adopted in June of this year. The proposed level of 10ppb is much better than the old 50ppb level. However, a recent study by the National Academy of Science shows that with arsenic levels of even 3ppb the risk of contracting a fatal cancer is still higher than the least protective federal standards for carcinogenic drinking water contaminants. The Environmental Protection Agency has estimated that a 10ppb level for arsenic would result in a risk factor as high as 3-in-10,000. Because the proposed arsenic standard fails to meet the least protective federal standard of 1-in-10,000, I ask that the Board consider an even more protective standard.

Long term exposure to low levels of arsenic in drinking water pose numerous threats to public health. These threats include skin, bladder, lung and prostate cancer, as well as cardiovascular disease, diabetes, anemia. Arsenic exposure may also result in reproductive, developmental and neurological problems. Given these grave risks to public health, the Board should act quickly to enact the most protective arsenic level.

According to the Clean Water Act and states must offer a level of protection equal to that provided by federal standards, however there is nothing to keep the board from enacting a more protective standard. I urge you to adopt the most protective limit for arsenic, perhaps as low as 3ppb.

Thank you for your consideration, and for the opportunity to comment.

Sincerely,

Julie Archer  
Research Assistant

WEST VIRGINIA-CITIZEN ACTION GROUP  
1500 DIXIE STREET • CHARLESTON, WEST VIRGINIA 25311  
PHONE: 304-346-5891 • FAX: 304-346-8981 • [www.wvcag.org](http://www.wvcag.org)



LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA, INC.

December 12, 2001

Dr. David Samuel, Chairman  
West Virginia Environmental Quality Board  
1615 Washington St.  
Charleston, WV 25311

Dear Dr. Samuel,

The League of Women Voters of West Virginia supports a strong arsenic standard for groundwater. We believe the 10 ppb standard, as proposed by the Environmental Quality Board, is a move towards a standard which will protect West Virginians. However, decades of research have brought the National Academy of Science to assert that even a 3 ppb standard for drinking water would result in more cancer cases than the US EPA sets as an acceptable risk.

Besides the risk of cancer, arsenic in drinking water is harmful by its causing digestive tract, skin, circulatory system, reproductive, immunological, and nerve disorders.

The 10 ppb standard would be more protective than the present 50 ppb standard, but the League notes that a standard more in line with the National Academy of Sciences suggestion would protect our people from harmful effects of arsenic in our drinking water.

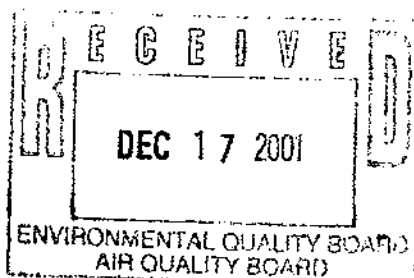
Sincerely,

SR/HG

*Helen Gibbins*

Sharon Rowe, President  
League of Women Voters of WV  
31 Poplar Grove Estates  
Princeton, WV 24740

Helen Gibbins, Natural Resources  
Director  
League of Women Voters of WV  
6128 Gideon Rd.  
Huntington, WV 25705

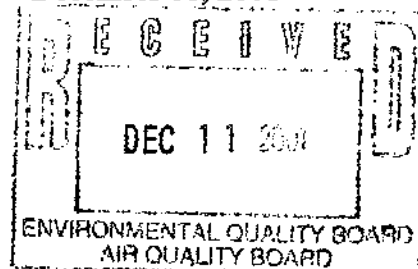


**Regina M. Hendrix**

Apartment #3  
1637 Quarrier Street  
Charleston, West Virginia 25311-2147

Home Phone (304) 343-5211  
Email reginahend@aol.com

December 08, 2001



Dr. David Samuel, Chairman  
West Virginia Environmental Quality Board  
1615 Washington St.  
Charleston, WV 25311

Dear Dr. Samuel:

I respectfully submit the following comments pertaining to the West Virginia Environmental Quality Board's proposed rules for groundwater standards (46 CSR 12).

It's good that the Board has decided to revisit the arsenic issue and consider a more protective standard. While the 10 ppb level is much better than the old 50 ppb level, the National Academy of Sciences recently has shown that with arsenic levels of even 3 ppb in groundwater, the risk of contracting a fatal cancer is still far higher than EPA normally accepts when setting drinking water standards for cancer-causing contaminants. EPA has estimated that a 10 ppb level for arsenic would result in a risk of contracting fatal cancer as high as 3-in-10,000. The least protective federal standards for carcinogenic drinking water contaminants is 1-in-10,000. I ask that the Board consider an arsenic level even more protective than the 10 ppb level you are proposing.

Long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects. Given these grave risks to public health, it is imperative that the Board enact a most protective arsenic level as quickly as possible.

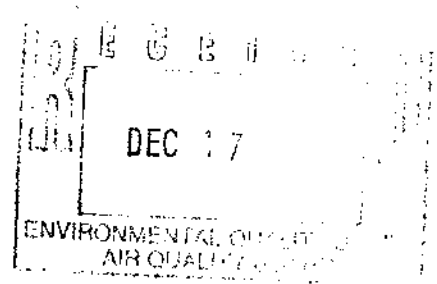
While the federal government will set the arsenic standard at 10 ppb, it is probably not protective enough, and there's nothing to keep the Board from enacting a more protective standard, perhaps as low as 3 ppb. The federal Clean Water Act and water quality standards say that states must have standards at least as protective as federal levels. Certainly, states have every ability to write more protective limits on such pollution, and should do so when the situation warrants it. This clearly is one of those situations.

Thanks very much for your consideration, and for the opportunity to comment.

Sincerely,

Regina M. Hendrix

Dr. David Samuel, Chairman  
West Virginia Environmental Quality Board  
1615 Washington St.  
Charleston, WV 25311



Dear Dr. Samuel:

I respectfully submit the following comments pertaining to the West Virginia Environmental Quality Board's proposed rules for groundwater standards (46 CSR 12).

It's good that the Board has decided to re-visit the arsenic issue and consider a more protective standard. While the 10 ppb level is much better than the old 50 ppb level, the National Academy of Sciences recently has shown that with arsenic levels of even 3 ppb in groundwater, the risk of contracting a fatal cancer is still far higher than EPA normally accepts when setting drinking water standards for cancer-causing contaminants. EPA has estimated that a 10 ppb level for arsenic would result in a risk of contracting fatal cancer as high as 3-in-10,000. The least protective federal standards for carcinogenic drinking water contaminants is 1-in-10,000. I ask that the Board consider an arsenic level even more protective than the 10 ppb level you are proposing.

Long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects. Given these grave risks to public health, it is imperative that the Board enact a most protective arsenic level as quickly as possible.

While the federal government will set the arsenic standard at 10 ppb, it is probably not protective enough, and there's nothing to keep the Board from enacting a more protective standard, perhaps as low as 3 ppb. The federal Clean Water Act and water quality standards say that states must have standards at least as protective as federal levels. Certainly, states have every ability to write more protective limits on such pollution, and should do so when the situation warrants it. This clearly is one of those situations.

Thanks very much for your consideration, and for the opportunity to comment.

Sincerely,

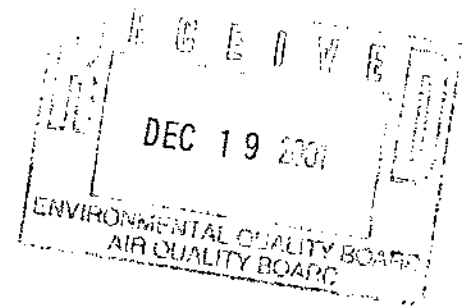
Mr. Francis D. Slider  
Conservation Chair  
West Virginia Sierra Club  
Rt 1 Box 163-A2  
Middlebourne, WV 26149  
304-758-2500





Donald S. Garvin, Jr.

P.O. Box 666 Buckhannon, WV 26201  
Phone: (304) 472-8716 Phone and Fax: (304) 472-8658  
Email: DSGJR@aol.com



December 19, 2001

Environmental Quality Board  
1615 Washington Street, East, Suite 301  
Charleston, West Virginia 25311-4002

Comment on Proposed Amendments to Title 46 Series 12,  
Requirements Governing Groundwater Standards for Arsenic

Members of the Board:

I submit the following brief comments on behalf of the West Virginia Environmental Council.

After decades of political debate over the Maximum Contaminant Level for arsenic in our drinking water necessary to provide for the public health, the U.S. Environmental Protection Agency (under both the current and past administrations) has announced that it intends to revise the 50 year old arsenic standard from 50 parts per billion to 10 parts per billion, effective on February 20, 2002.

While this proposed revision represents a dramatic decrease in acceptable arsenic levels in drinking water, the new standard remains a political compromise with industry that does not go far enough to protect the public health. And in fact, the "sound science" that ultimately forced the acceptance of this compromise revision argues strongly that the standard should be reduced even further.

This "sound science" is contained in two recent reports by the National Academy of Sciences (one released in 1999, the other early in 2001) that found that the cancer risks of even low levels of arsenic in tap water are many times higher than EPA ever estimated. The most recent report found that exposure to water with arsenic levels of 10 parts per billion (the current EPA proposal) is associated with a risk of 30 cancer deaths per 10,000 people drinking the water, which is 30 times the EPA's own acceptable rate for public health risk. The most recent National Academy of Sciences report itself recommended a Maximum Contaminant Level for arsenic of 3 parts per billion, the lowest level that EPA studies show is technically and economically feasible to achieve.

One fact seems clear enough: arsenic causes cancer and kills people. And "sound science" has shown that even small amounts of arsenic in drinking water will kill many of those who drink it. We urge the Board to make a scientific decision rather than a political one, and to adopt an arsenic standard of 3 parts per billion as recommended by the National Academy of Sciences.

We urge the Board to protect the public health of West Virginia citizens.

Submitted by:

Donald S. Garvin, Jr.  
WVEC Legislative Coordinator

**JANUARY 7**

**TENTATIVE AGENDA**  
**LEGISLATIVE RULE-MAKING REVIEW COMMITTEE**  
**Monday, January 7, 2002**  
**5 p.m. to 7 p.m.**  
**Senate Finance Committee Room, M-451**

1. Review of Legislative Rules:
  - a. Office of the State Auditor  
*State Purchasing Card Program, 148CSR7*
  - b. Human Rights Commission  
*The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7*
  - c. Human Rights Commission  
*The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9*
  - d. Office of Mining and Reclamation  
*Surface Mining Reclamation Rule, 38CSR2*
  - e. Environmental Quality Board  
*Requirements Governing Groundwater Standards, 46CSR12*
  - f. Division of Protective Services  
*Qualification, Training and Certification Requirements for Members of the Division, 99CSR1*
  - g. Division of Protective Services  
*Ranks and Duties of Officers Within the Membership of the Division, 99CSR2*
  - h. Division of Protective Services  
*Grievance Procedure of the Division, 99CSR4*
  - i. Risk and Insurance Management  
*Mine Subsidence Insurance, 115CSR1*
  - j. Office of Water Resources  
*WV/NPDES Rules for Coal Mining Facilities, 47CSR30*

- k. **Office of Water Resources**  
*State Certification of Activities Requiring Federal Licenses  
and Permits Rule, 47CSR5A*
- l. **Secretary of State**  
*Uniform Commercial Code, Revised Article 9, 153CSR35*
- m. **Division of Health**  
*Emergency Medical Services, 64CSR48*
- n. **Board of Pharmacy**  
*Rules and Regulations of the Board of Pharmacy 15CSR1*
- o. **Board of Pharmacy**  
*Board of Pharmacy Rules for Continuing Education for  
Licensure of Pharmacists, 15CSR3*

2. **Other Business**

Monday, January 7, 2002

5:00 p.m. to 7:00 p.m.

Legislative Rule-Making  
Review Committee  
(Code §29A-3-10)

Earl Ray Tomblin  
ex officio nonvoting member

Robert "Bob" Kiss  
ex officio nonvoting member

**Senate**

**House**

Ross, Chairman

Mahan, Chairman

Anderson, Vice Chairman

Wills, Vice Chairman

Minard

Cann

Snyder

Absent

Kominar

Boley

Faircloth

Miner

Riggs

Absent

The meeting was called to order by Mr. Ross, Co-Chairman.

Debra Graham, Committee Counsel, stated that the rule proposed by the *Office of the State Auditor-State Purchasing Card Program, 148CSR7*, had been moved to the foot of the agenda at the Committee's January 6, 2002, meeting to allow staff to have the Commission on Special Investigations review the proposed rule. Ms. Graham stated that the Commission has no problem with the proposed rule.

Ms. Mahan moved that the proposed rule be approved. The motion was adopted.

Connie Bowling, Associate Counsel, stated that the rule proposed by the *Human Rights Commission-The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7*, had been laid over at the Committee's January 6, 2002, meeting. Ms. Bowling explained the modifications proposed by the Commission.

Ms. Mahan moved that the Board's proposed modifications and the technical modifications be approved. The motion was adopted.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling stated that the provisions in the rule proposed by the *Human Rights Commission-The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9*, have been placed in the Series 7 rule and that the Commission would withdraw Series 9.

Ms. Mahan moved that the Committee recommend that the Commission withdraw the proposed rule. The motion was adopted.

Joseph Altizer, Associate Counsel, explained that the rule proposed by the *Office of Mining and Reclamation-Surface Mining Reclamation Rule, 38CSR2*, had been laid over at the Committee's January 6, 2002, meeting.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Mr. Altizer explained that the rule proposed by the *Environmental Quality Board-Requirements Governing Groundwater Standards, 46CSR12*, had been laid over at the Committee's January 6, 2002, meeting. Libby Chatfield, the Technical Advisor for the Board; Alyn Turner, Director of the Office of Water Resources; Brenda Harper, Vice President of the West Virginia Manufacturer's Association; and Mike McNulty, representing the West Virginia Rural Water Association; responded to questions from the Committee.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling reviewed her abstract on the rule proposed by the *Division of Protective Services-Qualification, Training and Certification Requirements for Members of the Division, 99CSR1*, and stated that the Division has agreed to technical modifications.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling explained the rule proposed by the *Division of Protective Services-Ranks and Duties of Officers Within the Membership of the Division, 99CSR2*, responded to questions and stated that the Division has agreed to technical modifications.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling reviewed her abstract on the rule proposed by the *Division of Protective Services-Grievance Procedure of the Division, 99CSR4*, and stated that the Division has agreed to technical modifications.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling explained the rule proposed by the *Board of Risk and Insurance Management-Mine Subsidence Insurance, 115CSR1*, and stated that the Board has agreed to technical modifications.

Mr. Faircloth moved that the proposed rule be approved as modified.

Mr. Altizer reviewed his abstract on the rule proposed by the *Office of Water Resources-WV/NPDES Rules for Coal Mining Facilities, 47CSR30*. Chris Hamilton, representing the West Virginia Coal Association, and Ms. Turner responded to questions from the Committee.

Mr. Anderson moved that the Committee recommend that the Office withdraw the proposed rule. The motion was adopted.

Mr. Altizer explained the rule proposed by the *Office of Water Resources-State Certification of Activities Requiring Federal Licenses and Permits Rule, 47CSR5A*, and stated that the Office has agreed to technical modifications. Mr. Hamilton and Ken Politan, Assistant Chief of the Office of Water Resources, responded to questions from the Committee.

Mr. Anderson moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Bowling reviewed her abstract on the rule proposed by the *Secretary of State-Uniform Commercial Code, Revised Article 9, 153CSR35*, and stated that the Secretary of State has agreed to technical modifications.

Mr. Minard moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Graham explained the rule proposed by the *Division of Health-Emergency Medical Services, 64CSR48*, and stated that the

Division has agreed to technical modifications. Ms. Graham, Jerry Rhodes, Director of Emergency Medical Services, and Chris Hall, Executive Director of the West Virginia EMS Coalition, responded to questions from the Committee.

Mr. Cann moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Graham reviewed her abstract on the rule proposed by the *Board of Pharmacy-Rules and Regulations of the Board of Pharmacy, 15CSR1*, and stated that the Board has agreed to technical modifications.

Mr. Minard moved that the proposed rule be approved as modified. The motion was adopted.

Ms. Graham explained the rule proposed by the *Board of Pharmacy-Board of Pharmacy Rules for Continuing Education for the Licensure of Pharmacists, 15CSR3*, and stated that the Board has agreed to technical modifications.

Ms. Mahan moved that the proposed rule be approved as modified. The motion was adopted.

Having voted on the prevailing side, Ms. Mahan moved that the Committee reconsider its action whereby the rule proposed by the *Secretary of State-Uniform Commercial Code, Revised Article 9, 153CSR35*, was approved as modified. The motion was adopted.

Ms. Bowling explained two substantive modifications proposed by the Secretary of State. She explained a proposed modification to allow the Secretary of State to provide data on compact disk, optical disk or by FTP transfer.

Ms. Mahan moved that the Secretary of States's proposed modification be approved. The motion was adopted.

Ms. Bowling then explained a proposed modification to allow the Secretary of State's office to retain fee overpayments under ten dollars.

Mr. Anderson moved that the Secretary of State's proposed modification be approved. The motion was rejected.



Ms. Mahan move that the proposed rule be approved as modified.  
The motion was adopted.

Ms. Mahan moved that the Committee direct its staff to: prepare the Committee's report and submit the report to the Clerk's office of each House; draft a bill of authorization for each rule contained in the report; and cause the bills to be introduced in each house with the members of the Committee as sponsors in their respective houses. The motion was adopted.

The meeting was adjourned.

**JANUARY INTERIM ATTENDANCE**  
**Legislative Interim Meetings**  
**January 6, 7 and 8, 2002**

Monday, January 7, 2002

5:00 - 7:00 p.m.

Legislative Rule-Making Review Committee  
(Code §29A-3-10)

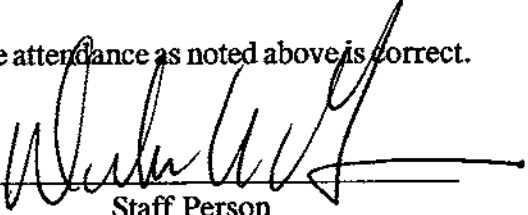
Earl Ray Tomblin, ex  
officio nonvoting member

Robert S. Kiss, ex  
officio nonvoting member

Senate  
Ross, Chair   
Anderson, Vice Chair   
Minard   
Sayder   
Boley   
Minear

House  
Mahan, Chair   
Wills, Vice Chair   
Cann   
Kominar   
Faircloth   
Riggs

I certify that the attendance as noted above is correct.

  
\_\_\_\_\_  
Staff Person

Terri Anderson

REGISTRATION OF PUBLIC  
AT  
COMMITTEE MEETINGS  
WEST VIRGINIA LEGISLATURE

Committee: Legislative Rule-Making Review Date 1/7/2002  
Please print or write plainly.

NAME	ADDRESS	REPRESENTING	Please check (X) if you desire to make a statement.
Jerry Rhodes	359 Capitol St Charleston 25301	WV office of EMS	
Robin Richter	Bldg 1 W-502	Auditor's Office	
Robert Fisher	4501 MacCorkle So Char	BRIM	

Monday, January 7, 2002

5:00 - 7:00 p.m.

Legislative Rule-Making Review Committee  
(Code §29A-3-10)

Earl Ray Tomblin, ex  
officio nonvoting member

Robert S. Kiss, ex  
officio nonvoting member

Senate

Ross, Chair

Anderson, Vice Chair

Minard

Snyder

Boley

Miner

✓  
✓  
✓  
✓  
✓  
✓

House

Mahan, Chair

Wills, Vice Chair

Cann

Kominar

Faircloth

Riggs

✓  
✓  
✓  
✓  
✓  
—

Auditor - Purchasing Card

Explained C on Sp Invest said there was no problem.

Approve

Mahan adopted

Human Rts. Series 7

Approve as modified

Mahan adopted

Human Rts. Series 9

Rec w/d.

Mahan adopted

Mining - Surface Mining

Approve as mod.

Mahan

EQ 10 - groundwater

Align  
libby Chatfield addressed C & responded to g's  
~~Alan~~ Turner - forced to speak & responded to g's  
Brenda Nichols Florer - VP WUMA responded to g's  
Mike McVultry - Ex Dir WV Rural Water Assn?

Anderson  
adopted

Joe explained  
Chris Hamilton addressed the C & responded to q's  
request agency withdraw

HO Resources - DPES

Farelyth

Connie explained  
BKM  
Approve as mod

Mahan  
adopted

DPES  
Approve as mod

Mahan  
adopted

DPES - Banks & Davies  
Connie explained & responded to q's  
Approve as mod

Mahan  
adopted

DPES - Qual  
Connie explained  
Approve as mod

Mahan  
adopted

Approve as mod

H2O Resources - State Cert.

Joe explained & responded to q's  
Chris

Ken Powelton? Politon

Anderson

Approve as mod

SOS - uce

Connie explained  
Approve as modified

Minard

Div. of Health

I explained

Jerry Rhodes, Dep. Dir

Chris Hall - Exec Dir WU EMS Coalition

Cann  
& adopted

Approve as mod

Pharm

Minard

Mahan

Pharm

Previsit SOS

Mahan  
& adopted


Motion on report

**TENTATIVE AGENDA**  
**LEGISLATIVE RULE-MAKING REVIEW COMMITTEE**  
**Monday, January 7, 2002**  
**5 p.m. to 7 p.m.**  
**Senate Finance Committee Room, M-451**

1. Review of Legislative Rules:

- Approved* a. Office of the State Auditor  
State Purchasing Card Program, 148CSR7
- Approved as modified* b. Human Rights Commission  
The Definition of Employee Under the West Virginia Human Rights Act, 77CSR7
- Ree withdrawal* c. Human Rights Commission  
The Definition of Employer Under the West Virginia Human Rights Act, 77CSR9
- Approved as modified* d. Office of Mining and Reclamation ~~\*~~  
Surface Mining Reclamation Rule, 38CSR2
- Approved as modified* e. Environmental Quality Board  
Requirements Governing Groundwater Standards, 46CSR12
- Approved as modified* f. Division of Protective Services  
Qualification, Training and Certification Requirements for Members of the Division, 99CSR1
- Approved as modified* g. Division of Protective Services  
Ranks and Duties of Officers Within the Membership of the Division, 99CSR2
- Approved as modified* h. Division of Protective Services  
Grievance Procedure of the Division, 99CSR4
- Approved as modified* i. Risk and Insurance Management  
Mine Subsidence Insurance, 115CSR1
- Ree withdrawal* j. Office of Water Resources  
WV/NPDES Rules for Coal Mining Facilities, 47CSR30

Approved as modified ✓

Office of Water Resources   
State Certification of Activities Requiring Federal Licenses  
and Permits Rule, 47CSR5A

Approved as modified ✓

Secretary of State  
Uniform Commercial Code, Revised Article 9, 153CSR35

Approved as modified ✓

Division of Health  
Emergency Medical Services, 64CSR48

Approved as modified ✓

Board of Pharmacy  
Rules and Regulations of the Board of Pharmacy 15CSR1

Approved as modified ✓

Board of Pharmacy  
Board of Pharmacy Rules for Continuing Education for  
Licensure of Pharmacists, 15CSR3

2. Other Business



DRAFT

TITLE 77  
LEGISLATIVE RULE  
WEST VIRGINIA HUMAN RIGHTS COMMISSION  
SERIES 7

THE DEFINITION OF EMPLOYER  
UNDER THE WEST VIRGINIA HUMAN RIGHTS ACT

§ 77-7-1. General

1.1. Scope -- This legislative rule interprets and implements the provisions of the West Virginia Human Rights Act, particularly W. Va. Code § 5-11-3(d) related to the definition of employer, and is to assist all persons in understanding their rights, obligations and duties under the law.

1.2. Authority -- W. Va. Code § 5-11-8(h).

1.3. Filing date --

1.4. Effective date --

§ 77-7-2. Definition; Manner of Calculating Employees.

2.1. "Employer" means the state, or any political subdivision of the state, and any person employing twelve or more persons within the state for twenty or more calendar weeks in the calendar year in which the act of discrimination allegedly took place or the preceding calendar year: Provided, That such terms shall not be taken, understood or construed to include a private club.

2.2. For purposes of this rule, the number of employees shall be calculated by including all persons with whom the employer has an employment relationship, whether or not the person is performing tasks or receiving compensation from the employer on a particular day. Part-time and temporary employees and individuals placed in job assignments by employment agencies shall be counted for any week in

which such person has an employment relationship with the employer. Individuals employed by his or her parent, spouse or child shall not be counted.

G:\CIVL\REGS\EMPLOYER REGS 2001- SECOND REVISED.wpd

*Bonding is being returned to SBS as per language on matrix & per 12/20/00*

**Summary of Changes**

**38CSR2**

December, 2001

The following changes to the West Virginia Surface Mining and Reclamation Rule are being submitted to the West Virginia Legislature:

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Division" and inserting in lieu thereof the word "Department". Recent Code change reorganized the agency and changed Director to Secretary.

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Director" and inserting in lieu thereof the word "Secretary". Recent Code change reorganized the agency and changed Director to Secretary.

Cross reference corrections have been made throughout the rule.

**Page 5 - 2.31.b.1.** Forestry, as used in subsection 7.4 of this rule, means a long-term postmining land use for the production of wood or wood products designed to accomplish the following: **This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 6 - 2.43 -** Deletion of 2.43 requires that 2.44 thru 2.10B be renumbered. **Recent Code change reorganized the agency and changed Director to Secretary.**

**Page 10 - 2.10B -** Secretary means the Secretary of the Department of Environmental Protection or his authorized agent. **Recent Code change reorganized the agency and changed Director Secretary.**

**Page 14- 3.1.i.2.** Forfeited a ~~performance~~ bond or similar security deposited in lieu of bond. **The word performance was deleted to be consistent with the Code.**

**Page 22 - 3.6.k** Added the phrase and comply with 45 CSR 17.

→ **Page 45 - 3.30.d.8.** Liability under the ~~performance~~ bond required to be filed by the applicant will be for the duration of the underground mining activities and until all requirements of the Act and this rule have been complied with; **The word performance was deleted to be consistent with the Code.**

→ **Page 48 - 3.32.e.** If the application is approved, the ~~Director~~Secretary shall require that the applicant file a ~~performance~~ bond as provided in sections 11 and 12 of the Act and section 11 of this rule. **The word performance was deleted to be consistent with the Code.**

→ **Page 63 - 5.4.e.2.** Inspections shall be made regularly but not less than quarterly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the ~~performance~~ bond. **The word performance was deleted to be consistent with the Code.**

**Page 71 7.4.a.1.** Commercial forestry and forestry may be approved as a postmining land use for surface mining operations that receive variances from the general requirement to restore the postmining site to its approximate original contour. An applicant may request AOC variance for

## Summary of Changes

### 38CSR2

December, 2001

purposes of this section for the entire permit area or any segment thereof. Commercial forestry shall be established on areas receiving a variance from AOC and either commercial forestry or forestry shall be established on all portions of the permit area. Provided, that the faces of valley fills shall be reclaimed as described in subparagraph 7.4.b.1.J of this rule.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 74 – 7.4.b.1.C.5.** For forestry, all ponds and impoundments, except for ponds and impoundments located below the valley fills created during mining shall be left in place after bond release and shall be subject to the requirements of subsection 5.5 of this rule, except for ponds and impoundments located below the valley fills. Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule. The substrate of the ponds and wetlands must be capable of retaining water to support aquatic and littoral vegetation.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 75 – 7.4.b.1.D.1.** Soil is defined as and shall consist of the O, A, E, B, C and Cr horizons. O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Cr horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 77 – 7.4.b.1.G.1.** Lesser or no vegetative cover may only be authorized by the Secretary when mulch or other soil stabilizing practices have been used to protect all disturbed areas unless demonstrated that the reduced cover is sufficient to control erosion and air pollution attendant to erosion regardless of slope

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 78 – 7.4.b.1.G.3.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.I.2.** Furthermore, for both commercial forestry and forestry, where there is potential for excessive erosion on slopes greater than 20%, there shall be 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter, except where a lesser vegetation cover has been authorized, and rock cover and at least 80% of all trees and shrubs used to determine re-vegetation success must have been in place for at least 60% of the applicable minimum period of responsibility.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.I.3.** Above and beyond all other standards in effect, Additionally, for commercial forestry, phase III bond release may not be authorized unless commercial forest productivity has been

## Summary of Changes

### 38CSR2

December, 2001

achieved by the end of the twelfth growing season or, if such productivity has not been achieved, if a commercial forestry mitigation plan is submitted to the ~~Director~~Secretary, approved and completed.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 87 - 7.5.i.1.B.** The land plan shall incorporate adequate road frontage to all parcels. Such roads shall be designated in the plan and referred to as "main roads." Main roads shall meet State Department of Highways standards, meet the primary road requirements of section 2.4 of this rule, and shall be certified as built as safe for passenger car traffic by registered civil engineer.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 89 - 7.5.i.3.Q.** The reservoir is subject to requirements under subsection 5.5 of this rule.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 91 - 7.5.i.10.** Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 93 - 7.5.j.3.A.** O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Or horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 95 - 7.5.j.6.B.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 98 - 7.5.o.2.** Furthermore, in the conservation easement and public nursery areas, there shall be a 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter and rock cover. This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.

**Page 105 - 10.4.a.1.D.** The aggregate total prime farmland acreage shall not be decreased from that which existed prior to mining. Water bodies, if any, constructed during mining and reclamation must be located within the post reclamation non-prime farmland portions of the permit area. The creation of such water bodies must be approved by the Department of Environmental Protection and have the consent of all affected property owners within the permit area.

**This is to address an item in the 732 letter dated July 22, 1997.**

## Summary of Changes

### 38CSR2

December , 2001

**Page 107 - 10.6.b.3.** The measurement period for determining average annual crop production (yield) shall be a minimum of three (3) crop years prior to release of the performance bond. **The word performance was deleted to be consistent with the Code.**

**Page 108 - 11.2.b.** All performance bonds shall provide a mechanism for a bank or surety company to give prompt notice to the .....

**Page 115 - 11.4.a.1.** A performance bond in the appropriate amount shall be filed with the ~~Director~~ Secretary for that increment of land within the permit area upon which the operator will initiate and conduct surface mining and reclamation operations.

**The word performance was deleted to be consistent with the Code.**

**Page 115 - 11.4.a.4 -** When the applicant elects to "increment" the amount of the performance bond during the term of the permit,

**The word performance was deleted to be consistent with the Code.**

**Page 116 - 11.5.** Deletion of 11.5 ,

**Open Acre Limit Bonding, requires that 11.6 thru 11.8 be renumbered. Old Section 11.5 was obsolete.**

**Page 117-118 Site Specific Bonding - 11.5.a.** Where active or inactive operations are in compliance with the provisions of subsection 14.15 of this rule and coal extraction operations are completed, or nearly completed, or when the operations are eligible for or have received Phase I bond release, the site specific bond criteria of this subsection shall not apply.

~~After January 1, 1994, All~~ existing permits for surface mining operations in the four major categories set forth in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~ Secretary and a determination made as to whether or not the surface mining operations are subject to the site specific bonding criteria set forth herein. The determinations shall be made in accordance with the following:

Existing permits in the four major categories described in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~ Secretary at the time of renewal ~~or mid-term review, whichever occurs first,~~ and a determination made as to the adequacy of existing bond and shall not be renewed by the ~~Director~~ Secretary until the appropriate amount of bond has been posted. ~~The existing bond may be determined to be adequate only if all the following criteria are met:~~

~~11.6.a.1. The operation is active at the time of application for renewal or mid-term review, whichever occurs first.~~

~~11.6.a.2. An approved mining and reclamation plan which is in accordance with the requirements of subsection 14.15 of this rule has been made a part of the permit, or has been submitted as a permit revision and is pending approval.~~

~~11.6.a.3. The operation is in compliance with the requirements of subsection 14.15 of this rule.~~

~~11.6.a.4. The operation is not under a cessation order or show cause order.~~

~~11.6.a.5. There are not delinquent civil penalties associated with the permit.~~

## Summary of Changes

### 38CSR2

December, 2001

~~Where the operation has an approved inactive status, it shall be subject to the site specific bond criteria of this subsection at the time of permit renewal or mid-term review, whichever occurs first, and shall not be renewed by the Director until the appropriate amount of bond has been posted.~~

**This is to update this section.**

**Page 140 - 12.2.c.1** After the operator completes the backfilling, regrading (which may include the replacement of topsoil) and drainage control of a bonded area in accordance with the Act, this rule, and the terms and conditions of the permit to include the provisions of subsection 14.5 of this rule, Phase I reclamation shall be considered complete, and sixty (60) percent of the bond or collateral for the applicable area may be released, provided that the amount of the remaining bond shall be sufficient to cover the estimated cost of completing reclamation in accordance with the requirements of the approved permit and reclamation plan.

**This is to ensure the sufficient bond is retained to cover remaining reclamation.**

**Page 144 - 12.5.d.** Expenditures from the special reclamation fund for water quality enhancement projects ~~shall not exceed twenty five percent (25%) of the funds gross annual revenue as provided in subsection g, section 11 of the Act.~~

**This is to satisfy required program amendments identified in the Federal Register.**

**\*Page 144 - 12.5.e.** On or before the thirty-first day of December, ~~one thousand nine hundred ninety three~~ two thousand and two and every year thereafter, the ~~Director~~ Secretary shall submit to the Legislature a detailed report and inventory, which includes but is not limited to dates of mining and abandonment, with all supporting data on acid mine drainage bond forfeiture sites.

**This is to be consistent with the recent Code change.**

**Page 161 - 14.12.a.1.** Procedures to Obtain a Variance. The ~~Director~~ Secretary may grant a variance from the requirements for restoring the mined land in steep slope areas to approximate original contour under the following terms and conditions:

14.12.a.1. The permit area is located on steep slopes as defined in subdivision 14.8.a of this rule and the land after reclamation is suitable for industrial, commercial, residential, ~~commercial forestry,~~ or public use (including recreational facilities);

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 169 - 14.15.a.** Spoil returned to the mined-out area shall be backfilled and graded to the approximate original contour ~~with all highwalls eliminated unless, a waiver is granted pursuant to 22-3-13(c)(2) with all highwalls eliminated.~~

14.15.a.1. deleted but added the following information into 14.15.a: Incorporate into the required mining and reclamation plan a detailed site specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ratio of disturbed versus reclaimed area throughout the life of the operation;

## Summary of Changes

### 38CSR2

December, 2001

**Page 170 - 14.15.b.5.** added Regardless of the allowable limits contained in this section, any disturbed area other than those specified in 14.15.c must complete backfilling and rough grading within 180 days of mineral removal.

#### **14.15.b.6. Changed There to Where**

**14.15.b.6.A.** Where operations contemplated under this section are approved with contour mining which may include augering or highwall mining, the acreage must be calculated in the allowable disturbance contained in this paragraph and the contour pit length cannot exceed 3000 feet and backfilling/grading shall follow mineral removal within 180 days. Regardless of the allowable limits contained in this section, any disturbed area other than those specified in 14.15.c. must complete backfilling and rough grading within 180 days of mineral removal.

**Page 171 - 14.15.b.6.B.1.** ~~Incorporate into the required mining and reclamation plan a detailed site specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ratio of disturbed versus reclaimed area throughout the life of the operation;~~

**14.15.b.6.B.21.** Prestripping or benching operations will not exceed four hundred (400) acres for any single permit and cannot proceed dragline operations longer than 180 days. All fill construction must occur during this phase of operation and be conducted in accordance with 14.15.d.;

**14.15.c.1.** Semi-permanent ancillary facilities includes but not limited to haulroads, drainage control systems, parking areas, maintenance, storage and supply areas, etc., and areas cleared but not grubbed, provided, that such areas have appropriate drainage control systems in place. Provided that with exception of permanent haulroad and drainage control system the total acreage of all other semi-permanent ancillary facilities cannot exceed ten (10) percent of the total permit acreage;

~~**14.15.e.4.** Areas that have been cleared and grubbed which exceed the thirty aggregate acres and/or those which will not be included in the operational area within six months may be excluded if the appropriate temporary or permanent drainage control structures are installed and certified and have temporary vegetative cover established; and~~

#### **Page 172 - 14.15.c.54**

**14.15.d.** Excess Spoil Disposal Fills. All fills must be constructed contemporaneously and contiguously with that segment of the operation that contains the material that is designated to be placed in the fill. In addition to all other standards in effect, the following shall apply to excess spoil disposal fills;

**14.15.d.1.** All fills must be planned for continuous material placement until designed capacity is reached and cannot have a period of inactivity that exceeds 180 days;



## Summary of Changes

### 38CSR2

December, 2001

14.15.d.2. Areas where contour mining is proposed within the confines of the fill are not eligible for the exemption contained in 14.15.c.2.

14.15.d.3. Fills that are designed utilizing single lift, top down construction may be required to supply a supplemental bond pursuant to 11.5.b.4.

14.15.d.4. Clearing and grubbing activities in fill areas will be limited to no more than five (5) acres ahead of the developing face for fills utilizing single lift, top down construction and fills constructed in the conventional method described in 14.14.e.8 shall be subject to the limitations contained in 14.15.c.2.

**14.15.d changed to 14.15.e and requires 14.15.d through 14.15.f be renumbered and the 1993 date changed to 2002 in the entire section. The Secretary may consider contemporaneous reclamation plans on multiple permitted areas with adjoining boundaries where to ensure that contemporaneous reclamation is practiced on a total operational basis. Plans submitted on multiple permitted areas cannot add allowable disturbed areas in such a manner as to result in increased disturbed areas unless a variance is obtained pursuant to 14.15.g. This paragraph is meant to establish a method of orderly transition between operations.**

**14.15.fg. Variance - Permit Applications. The ~~Director~~Secretary may grant approval of a mining and reclamation plan for a permit which seeks a variance to one or more of the standards set forth in this subsection, if on the basis of site specific conditions and sound scientific and/or engineering data, the applicant can demonstrate that compliance with one or more of these standards is not technologically or economically feasible. The Secretary may not grant a variance that exceeds thirty (30) percent of the allowable acreage limits or 10% of the allowable percentages contained in this section. Furthermore, the amount of bond for the operation shall be based on the maximum amount per acre specified in WV Code §22-3-12(c)(1) and may be required to supply a supplemental bond pursuant to 11.5.b.4. The variance request shall be in writing and must contain the following elements:**

**Page 173 - 14.15.g.5 - 14.15.g.5. A detailed economic analysis including a discussion and feasibility analysis of possible alternatives that were considered must be submitted for variance requests that use economics as the basis for the request.**

**Page 173 - 14.15.g.h.**

**14.15.i. Revision. A revision is required prior to any change in mining methods which would affect the standards contained in this section.**

**Page 173 - 14.15.h through 14.15.l changed to 14.15.j. to 14.15.n**

**Page 174 - 14.15.m. changed to 14.15.o**

**Page 174 - 14.16 Added the phrase and comply with 45CSR 17.**

## Summary of Changes

### 38CSR2

December , 2001

#### **Page 181 - 182 17.4 and 17.6.a**

17.4. Request for Assistance. Each applicant requesting assistance shall provide information on forms provided by the ~~Director~~Secretary in an application that shall be clear and concise and shall be provided in a format prescribed by the ~~Director~~Secretary and/or a format required by the Federal Office of Surface Mining Reclamation and Enforcement. Each application for assistance shall include the following information:

17.4.a. A statement of the operator's intent to file a permit application;

17.4.b. The names and addresses of:

17.4.b.1. The permit applicant; and

17.4.b.2. The operator if different from the applicant.

17.4.c. A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant. The schedule shall include for each location:

17.4.c.1. The operator or company name under which coal is or will be mined;

17.4.c.2. The permit number and Mine Safety and Health Administration (MSHA) number;

17.4.c.3. The actual coal production during the year preceding the year for which the applicant applies for assistance and production that may be attributed to the applicant; and

17.4.c.4. The estimated coal production and any production which may be attributed to the applicant for each year of the proposed permit.

17.4.d. A description of:

17.4.d.1. The proposed method of coal mining;

17.4.d.2. The anticipated starting and termination dates of mining operations;

17.4.d.3. The number of acres of land to be affected by the proposed mining operation; and

17.4.d.4. A general statement on the probable depth and thickness of the coal resource including a statement of reserves in the permit area and the method by which they were calculated.

17.4.e. A U.S. Geological Survey topographic map at a scale of 1:24,000 or larger or other topographic map of equivalent detail which clearly shows:

17.4.e.1. The area of land to be affected;

17.4.e.2. The location of any existing or proposed test borings; and

17.4.e.3. The location and extent of known workings of any underground mines.

17.4.f. Copies of documents which show that:

## Summary of Changes

### 38CSR2

December, 2001

17.4.f.1. The applicant has a legal right to enter and commence mining within the permit area; and

17.4.f.2. A legal right of entry has been obtained for the program administrator and laboratory personnel to inspect the lands to be mined and adjacent areas to collect environmental data or to install necessary instruments.

#### 17.6. Qualified Laboratories.

17.6.a. General. A qualified laboratory means a designated public agency, private consulting firm, institution, or analytical laboratory that can provide the required determination of a probable hydrologic consequences or statement of results of test borings or core samplings or other services as specified under the Small Operator Assistance Program and that is approved by the Division/Department of Environmental Protection as a SOAP contractor.

**This is to address an item in the 732 letter dated July 22, 1997.**

**Pages 218 - 221 - New Section 25. - This is to address an item in the 732 letter dated February 7, 1990.**



Division of Mining and Reclamation  
#10 McJunkin Road  
Nitro, West Virginia 25143  
Telephone Number (304) 759-0510  
Fax Number (304) 758-0528

**West Virginia Department of Environmental Protection**

**Fax**

TO: Joe Altizer  
FROM: Charles Stacey  
DATE: 1/2/02 No. of Pages(including cover) 10

**COMMENTS:**

*No New Summary of Changes*

**LIBBY CHATFIELD - Arsenic in ground water**

---

**From:** "Douglas B Chambers" <dbchambe@usgs.gov>  
**To:** <gdasher@mail.dep.state.wv.us>, <lchatfield@aqbeqb.state.wv.us>  
**Date:** 1/7/02 2:26 PM  
**Subject:** Arsenic in ground water  
**CC:** "Douglas B Chambers" <dbchambe@usgs.gov>

---

Mr. Dasher, Ms Chatfield, please find attached an MS Excel file containing all the arsenic data currently in our water-quality database. More data may reside in another database, but would take longer to retrieve. Hopefully this will meet your short-term needs. If you have any further questions please contact me or Mark Kozar, our Ground water Specialist (mdkozar@usgs.gov, 347-5130ext 228).

Douglas B. Chambers  
Biologist  
U.S. Geological Survey - WRD  
11 Dunbar Street  
Charleston, WV 25301  
dbchambe@usgs.gov  
Phone (304) 347-5130 ext 231  
Fax (304) 347-5133

(See attached file: As in GW.xls)

Station Name Name of the sampling site used in the WV District USGS database of water-quality data

Station ID # Station identification number used in the WV District USGS database of water-quality data

Sample Date Date sample was collected

County County where well is located

Arsenic, Dissolved, in ug/L Concentration of dissolved arsenic in sample expressed as micrograms per liter of sample. This is fraction that will pass through a 0.45um membrane filter. <, concentration less than minimum reporting value given. Blank field indicates that sample was not analyzed for that constituent.

Arsenic, Total, in ug/L Concentration of total arsenic in sample expressed as micrograms per liter of sample. This includes the dissolved, colloidal, and particulate fractions of As. <, concentration less than minimum reporting value given. Blank field indicates that sample was not analyzed for that constituent.

Station Name	Station ID #	Sample Date	County	Arsenic, Dissolved, in ug/L	Arsenic, Total, in ug/L
Ber-0150	392453077543501	19990414	Berkeley		<2
Ber-0468	392534077590401	19990413	Berkeley		<2
Boo-0253	375943081304601	19970603	Boone	<1	
Boo-0254	375232081382701	19970507	Boone	<1	
Boo-0255	380818081502301	19980514	Boone	1	
Boo-0256	380939081504801	19980504	Boone	<1	
Boo-0257	381048081504801	19980529	Boone	<1	
Boo-0258	380444081351401	19980506	Boone	<1	
Boo-0259	380708081370201	19980623	Boone	<1	
Boo-0260	380153081341101	19980515	Boone	<1	
Brk-0045	401634080364701	20010627	Brooke		<4
Brx-0269	384057080354101	19970610	Braxton	<1	
Brx-0270	383101080525401	19970609	Braxton	<1	
Cab-0233	382631082143001	19990409	Cabell		<2
Cal-0018	384250081062701	20000705	Calhoun		8
Cal-0128	385357081005201	20000725	Calhoun		<4
Cla-0141	382131081091501	19970508	Clay	<1	
Cla-0142	383405081022701	19970604	Clay	<1	
Fay-0148	380708081001601	20000809	Fayette		<4
Fay-0233	375209080515502	20000720	Fayette		<2
Fay-0234	375523080495601	19990428	Fayette		<2
Fay-0255	380425081045401	19880803	Fayette	<1	
Fay-0267	380403081185001	19970602	Fayette	1.1	
Fay-0268	375426081094101	19970616	Fayette	<1	
Fay-0270	380607081145801	19980522	Fayette	2	
Fay-0272	380131080591301	19980513	Fayette	1	
Fay-0274	375420081091301	19980521	Fayette	<1	
Fay-0275	375739081171801	19980512	Fayette	<1	
Fay-0276	375829081180801	19980508	Fayette	1	
Fay-0278	375914081121501	19980526	Fayette	<1	
Fay-0279	375915081132501	19980526	Fayette	<1	
Gil-0045	385103080561801	20000706	Gilmer		5
Gil-0197	390113080455501	20000629	Gilmer		<2
Gil-0198	385254080512701	20000706	Gilmer		3

Grb-0167	375802080411201	19990426 Greenbrier	3
Grb-0208	375803080460901	19990427 Greenbrier	<2
Grb-0264	381242080254001	19850903 Greenbrier	<1
Grb-0280	380202080275801	19970513 Greenbrier	1
Grb-0281	375503080382301	19970512 Greenbrier	13
Grb-0282	374836080300601	19970521 Greenbrier	<1
Grb-0283	375320080360801	19970519 Greenbrier	8.3
Grb-0284	380106080432801	19980616 Greenbrier	<1
Grb-0285	380253080431901	19990427 Greenbrier	<2
Grb-0286	375540080230101	20000713 Greenbrier	<2
Grb-0287	375804080294601	20000713 Greenbrier	13
Hrd-0293	385332078553601	19960905 Hardy	46
Hrd-0293	385332078553601	19970327 Hardy	1
Jac-0163	385340081502601	19990510 Jackson	<2
Jac-0165	383657081362501	19970529 Jackson	6
Jac-0166	383920081355401	19970527 Jackson	2.2
Jef-0029	391200077520301	19880726 Jefferson	<1
Jef-0054	391328077543101	19880726 Jefferson	<1
Jef-0312	392045077484401	19990415 Jefferson	<2
Jef-0513	391724077520201	19880725 Jefferson	<1
Jef-0517	391840077504001	19880725 Jefferson	<1
Jef-0546	391532077562701	19880728 Jefferson	<1
Jef-0553	392032077530401	19880728 Jefferson	<1
Jef-0578	392158077525301	19990413 Jefferson	<2
Kan-0927	381852081404401	19970528 Kanawha	1.1
Kan-0928	382636081432801	19970529 Kanawha	2.9
Kan-0929	381833081300401	19970603 Kanawha	<1
Kan-0932	382845081300301	19970505 Kanawha	<1
Kan-0934	381216081450101	19970506 Kanawha	<1
Kan-0935	381125081304701	19980505 Kanawha	<1
Kan-0938	381847081254201	19980622 Kanawha	<1
Lew-0214	390153080372201	20000629 Lewis	<2
Lin-0179	381631082061602	19990406 Lincoln	4
Lin-0180	381545082050801	19990405 Lincoln	<2
Lin-0181	380254082083501	19990407 Lincoln	<2
Log-0198	375842082082101	19990408 Logan	<2
Mal-0103	395335080474601	20010626 Marshall	<4



Mal-0110	395601080452801	20010626 Marshall	<4
Mal-0400	395853080440001	20010626 Marshall	<4
Mar-0296	393530080151501	20000627 Marion	<2
Mas-0915	384000082102601	20010523 Mason	<4
Mas-0917	385304081554501	19990511 Mason	<2
Mas-0930	384458082112601	20010522 Mason	<4
Mas-0958	385922081565701	19990507 Mason	<2
Mcd-0042	371803081410401	19990513 McDowell	<2
Mcd-0109	372259081334101	19990519 McDowell	<2
Mcd-0149	372734081490202	19990513 McDowell	<2
Mer-0119	371818081155601	20000808 Mercer	<4
Mer-0120	371915081082601	20000802 Mercer	<4
Mer-0162	372011081090901	20000802 Mercer	4
Mer-0163	372519081144203	20000718 Mercer	<2
Mer-0167	373018081075801	20000803 Mercer	<4
Mer-0169	371915081173201	19970514 Mercer	<1
Mer-0170	373020081075601	19970514 Mercer	<1
Mig-0140	373810082055601	19990518 Mingo	<2
Mig-0141	374244082111001	19990517 Mingo	<2
Mng-0548	392923079571801	20000726 Monongalia	<2
Mnr-0148	373528080323302	20000719 Monroe	<2
Mrg-0072	393420078131702	19990415 Morgan	6
Nic-0180	380605080415501	19850904 Nicholas	<1
Nic-0206	381639080380101	19970617 Nicholas	<1
Nic-0207	381533080593401	19970605 Nicholas	<1
Nic-0208	381652080473501	19970616 Nicholas	<1
Nic-0209	381539080560201	19980708 Nicholas	1
Nic-0211	382113080442701	19980610 Nicholas	<1
Nic-0212	381513080584401	19980519 Nicholas	<1
Nic-0213	381656080543301	19980528 Nicholas	1
Nic-0214	381931080425401	19980603 Nicholas	<1
Nic-0215	382011080424501	19980602 Nicholas	<1
Nic-0217	382340080481301	19980612 Nicholas	1
Nic-0218	382434080401401	19980617 Nicholas	<1
Nic-0219	382123080381701	19980604 Nicholas	<1
Nic-0220	381814080543901	19990428 Nicholas	<2
Ple-0068	392246081155401	19990506 Pleasants	<2

Ple-0071	392503081110901	19990504 Pleasants	<2
Poc-0237	380720080082901	20000712 Pocahontas	<2
Poc-0257	382416080013701	19970520 Pocahontas	1.1
Poc-0258	381233080063801	19970521 Pocahontas	<1
Poc-0260	380755080123701	20000710 Pocahontas	<2
Poc-0261	382506079500201	20000711 Pocahontas	<2
Poc-0262	382553079491201	20000711 Pocahontas	<2
Put-0998	383038081505201	19960819 Putnam	8
Put-0998	383038081505201	19970319 Putnam	7
Ral-0220	374645081030701	19970513 Raleigh	<1
Ral-0221	375246081133401	19980527 Raleigh	<1
Sum-0098	373213081003301	19960827 Summers	4
Sum-0098	373213081003301	19970410 Summers	3
Sum-0099	373123080484801	19970522 Summers	1
Sum-0103	374908080435601	19970618 Summers	16
Sum-0105	375115080474901	19980618 Summers	<1
Tyl-0077	393145081024201	19990504 Tyler	<2
Way-0140	380137082260001	20010524 Wayne	<4
Way-0143	380736082274401	20010521 Wayne	<4
Web-0237	382817080313501	19970611 Webster	<1
Web-0238	382307080381201	19980611 Webster	<1
Wet-0111	393618080560601	19990503 Wetzel	<2
Wir-0105	390202081234201	19960820 Wirt	10
Wir-0105	390202081234201	19970401 Wirt	8
Woo-0177	392131081240901	19990430 Wood	<2
Woo-0185	392055081322901	19990506 Wood	<2
Woo-0196	392359081270001	19990429 Wood	<2
Wyo-0060	373432081250501	20010606 Wyoming	<4
Wyo-0062	373503081225201	20010606 Wyoming	<4
Wyo-0263	373512081352301	20010605 Wyoming	<4
Wyo-0265	373939081361001	20010607 Wyoming	<4
Brk-0077	401348080391601	20010627 Brooke	<4
Danese PSD no.2 well	375521080563701	20000720 Fayette	4
Dunglen well	375713081043601	20000801 Fayette	<4
Hmp-0379	392654078355101	20010611 Hampshire	7
Hmp-0380	392217078314801	20010612 Hampshire	<4
Hmp-0381	391611078332501	20010612 Hampshire	<4

Hmp-0382	391125078282401	20010613 Hampshire	<4
Hmp-0383	391231078292901	20010613 Hampshire	<4
Hrd-0300	390254078441001	20010614 Hardy	<4
Lang House	380440081041801	20000807 Fayette	4
Lew-0215	385518080302201	20010529 Lewis	8
Lew-0216	385154080273401	20010530 Lewis	<4
Lew-0217	384825080284301	20010530 Lewis	<4
Lew-0218	385954080271501	20010531 Lewis	<4
Mal-0407	395641080453101	20010626 Marshall	<4
Mas-0959	384638082130301	20010523 Mason	<4
Moncove Superintendant	373721080211001	20000808 Monroe	<4
Nuttall Middle School	380332080575401	20000809 Fayette	<4
Oak Hill Whipple 5	375807081093901	20000810 Fayette	<4
Red Sulphur PSD no.1	372840080392901	20000718 Monroe	<2
Thurmond Depot	375727081044601	20000804 Fayette	<4
Way-0145	380703082195401	20010621 Wayne	4
Wet-0130	394136080302701	20010628 Wetzel	<4
Wyo-0268	373514081405101	20010604 Wyoming	<4
Wyo-0269	373553081380601	20010605 Wyoming	<4
Wyo-0270	374027081280801	20010607 Wyoming	<4

**TOTAL ARSENIC IN GROUNDWATER**  
7 January 2002

<i>FROM: Groundwater Programs and Activities, 2000 Biennial Report to the West Virginia Legislature</i>	
<i>Watershed</i>	<i>µg/l</i>
1: Tug Fork	<2
2: Tug Fork	<2
3: Tug Fork	<2
4: Tug Fork	<2
5: Tug Fork	<2
6: Gauley River	<2
7: Gauley River	<2
8: Gauley River	3
9: Lower Guyandotte River	<2
10: Gauley River	<2
11: Lower Guyandotte River	<2
12: Lower Guyandotte River	<2
13: Lower Guyandotte River	<2
14: Gauley River	4
15: Lower Guyandotte River	<2
16: Middle Ohio River South	<2
17: Middle Ohio River South	<2
18: Middle Ohio River South	<2
19: Potomac River Drains	<2
20: Middle Ohio River North	<2
21: Middle Ohio River North	<2
22: Potomac River Drains	<2
23: Middle Ohio River North	<2

24: Middle Ohio River North	<2
25: Potomac River Drains	<2
26: Middle Ohio River North	<2
27: Potomac River Drains	<2
28: Middle Ohio River North	<2
29: Potomac River Drains	6
30: Middle Ohio River North	<2

<i>FROM: Groundwater Programs and Activities, 2002 Biennial Report to the West Virginia Legislature</i>	
<i>Watershed</i>	<i>µg/l</i>
1: Twelvepole Creek	<4
2: Lower Ohio River	<4
3: Lower Ohio River	<4
4: Lower Ohio River	<4
5: Twelvepole Creek	<4
6: West Fork River	8.3
7: West Fork River	<4
8: West Fork River	<4
9: West Fork River	<4
10: Upper Guyandotte River	<4
11: Upper Guyandotte River	<4
12: Upper Guyandotte River	<4
13: Upper Guyandotte River	<4
14: Upper Guyandotte River	<4
15: Upper Guyandotte River	<4
16: Upper Guyandotte River	<4
17: Cacapon River	6.9

18: Cacapon River	<4
19: Cacapon River	<4
20: Cacapon River	<4
21: Cacapon River	<4
22: Cacapon River	<4
23: Twelvepole Creek	4.5
24: Upper Ohio River	<4
25: Upper Ohio River	<4
26: Upper Ohio River	<4
27: Upper Ohio River	<4
28: Upper Ohio River	<4
29: Upper Ohio River	<4
30: Upper Ohio River	<4

Summary of Agreed Upon Changes between WVDEP and the WV Coal Association

38CSR2

January 7, 2002

The following changes to the West Virginia Surface Mining and Reclamation Rule are being submitted to the West Virginia Legislature:

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Division" and inserting in lieu thereof the word "Department". Recent Code change reorganized the agency and changed Director to Secretary.

Beginning on page 1, in the title, and continuing throughout the text of the rule, by striking out the word "Director" and inserting in lieu thereof the word "Secretary". Recent Code change reorganized the agency and changed Director to Secretary.

Cross reference corrections have been made throughout the rule.

**Page 5 – 2.31.b.1.** Forestry, as used in subsection 7.4 of this rule, means a long-term postmining land use for the production of wood or wood products designed to accomplish the following:  
**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 6 – 2.43** – Deletion of 2.43 requires that 2.44 thru 2.108 be renumbered.  
**Recent Code change reorganized the agency and changed Director to Secretary.**

**Page 10 – 2.108** – Secretary means the Secretary of the Department of Environmental Protection or his authorized agent.  
**Recent Code change reorganized the agency and changed Director Secretary.**

**Page 14- 3.1.i.2.** Forfeited a performance bond or similar security deposited in lieu of bond.  
**The word performance was deleted to be consistent with the Code.**

**Page 45 - 3.30.d.8.** Liability under the performance bond required to be filed by the applicant will be for the duration of the underground mining activities and until all requirements of the Act and this rule have been complied with;  
**The word performance was deleted to be consistent with the Code.**

**Page 49 - 3.32.e.** If the application is approved, the ~~Director~~Secretary shall require that the applicant file a performance bond as provided in sections 11 and 12 of the Act and section 11 of this rule.  
**The word performance was deleted to be consistent with the Code.**

**Page 63 - 5.4.e.2.** Inspections shall be made regularly but not less than quarterly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.  
**The word performance was deleted to be consistent with the Code.**

**Page 71 7.4.a.1.** Commercial forestry and forestry may be approved as a postmining land use for surface mining operations that receive variances from the general requirement to restore the postmining site to its approximate original contour. An applicant may request AOC variance for

**Summary of Agreed Upon Changes between WVDEP and the WV Coal Association**

**38CSR2**

January 7, 2002

purposes of this section for the entire permit area or any segment thereof. Commercial forestry shall be established on areas receiving a variance from AOC and either commercial forestry or forestry shall be established on all portions of the permit area. Provided, that the faces of valley fills shall be reclaimed as described in subparagraph 7.4.b.1.J of this rule.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 74 – 7.4.b.1.C.5.** For forestry, all ponds and impoundments, except for ponds and impoundments located below the valley fills created during mining shall be left in place after bond release and shall be subject to the requirements of subsection 5.5 of this rule, except for ponds and impoundments located below the valley fills. Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule. The substrate of the ponds and wetlands must be capable of retaining water to support aquatic and littoral vegetation.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 75 – 7.4.b.1.D.1.** Soil is defined as and shall consist of the O, A, E, B, C and Cr horizons. O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Cr horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 78 – 7.4.b.1.G.1.** Lesser or no vegetative cover may only be authorized by the Secretary when mulch or other soil stabilizing practices have been used to protect all disturbed areas unless demonstrated that the reduced cover is sufficient to control erosion and air pollution attendant to erosion regardless of slope

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Page 78 – 7.4.b.1.G.3.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream.

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.I.2.** Furthermore, for both commercial forestry and forestry, where there is potential for excessive erosion on slopes greater than 20%, there shall be 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter, except where a lesser vegetation cover has been authorized, and rock cover and at least 80% of all trees and shrubs used to determine re-vegetation success must have been in place for at least 60% of the applicable minimum period of responsibility.



**Summary of Agreed Upon Changes between WVDEP and the WV Coal Association**

**38CSR2**

January 7, 2002

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 79 – 7.4.b.1.i.3.** Above and beyond all other standards in effect, Additionally, for commercial forestry, phase III bond release may not be authorized unless commercial forest productivity has been achieved by the end of the twelfth growing season or, if such productivity has not been achieved, if a commercial forestry mitigation plan is submitted to the Director/Secretary, approved and completed. **This is to satisfy required program amendments identified in the August 18, 2000 Federal Register.**

**Page 87 - 7.5.i.1.B.** The land plan shall incorporate adequate road frontage to all parcels. Such roads shall be designated in the plan and referred to as "main roads." Main roads shall meet State Department of Highways standards, meet the primary road requirements of section 2.4 of this rule, and shall be certified as built as safe for passenger car traffic by registered civil engineer.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 90 – 7.5.i.3.Q.** The reservoir is subject to requirements under subsection 5.5 of this rule. **This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 92 – 7.5.i.10.** Any pond or impoundment left in place is subject to requirements under subsection 5.5 of this rule.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 93 – 7.5.j.3.A.** . O horizon means the top-most horizon or layer of soil dominated by organic material derived from dead plants and animals at various stages of decomposition; it is sometimes referred to as the duff or litter layer or the forest floor. Cr horizon means the horizon or layer below the C horizon, consisting of weathered or soft bedrock including saprolite or partly consolidated soft sandstone, siltstone, or shale.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 95 – 7.5.j.6.B.** The permittee may regrade and reseed only those rills and gullies that are unstable and/or disrupt the approved postmining land use or the establishment of vegetative cover or cause or contribute to a violation of the water quality standards for the receiving stream.

**This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.**

**Page 98 – 7.5.o.2.** Furthermore, in the conservation easement and public nursery areas, there shall be a 70% ground cover where ground cover includes tree canopy, shrub and herbaceous cover, and organic litter and rock cover. This is to satisfy required program amendments identified in the December 21, 2000 Federal Register.

Summary of Agreed Upon Changes between WVDEP and the WV Coal Association

38CSR2

January 7, 2002

**Page 105 – 10.4.a.1.D.** The aggregate total prime farmland acreage shall not be decreased from that which existed prior to mining. Water bodies, if any, constructed during mining and reclamation must be located within the post reclamation non-prime farmland portions of the permit area. The creation of such water bodies must be approved by the Department of Environmental Protection and have the consent of all affected property owners within the permit area.

**This is to address an item in the 732 letter dated July 22, 1997.**

**Page 107 - 10.6.b.3.** The measurement period for determining average annual crop production (yield) shall be a minimum of three (3) crop years prior to release of the performance bond.

**The word performance was deleted to be consistent with the Code.**

**Page 108 – 11.2.b.** All performance bonds shall provide a mechanism for a bank or surety company to give prompt notice to the .....

**The word performance was deleted to be consistent with the Code.**

**Page 115 – 11.4.a.1.** A performance bond in the appropriate amount shall be filed with the ~~Director~~Secretary for that increment of land within the permit area upon which the operator will initiate and conduct surface mining and reclamation operations.

**The word performance was deleted to be consistent with the Code.**

**Page 115 – 11.4.a.4 –** When the applicant elects to "increment" the amount of the performance bond during the term of the permit,

**The word performance was deleted to be consistent with the Code.**

**Page 116 – 11.5.** Deletion of 11.5 ,

**Open Acre Limit Bonding, requires that 11.6 thru 11.8 be renumbered. Old Section 11.5 was obsolete.**

**Page 118 Site Specific Bonding - 11.5.a.** Where active or inactive operations are in compliance with the provisions of subsection 14.15 of this rule and coal extraction operations are completed, or nearly completed, or when the operations are eligible for or have received Phase I bond release, the site specific bond criteria of this subsection shall not apply.

~~After January 1, 1994,~~All existing permits for surface mining operations in the four major categories set forth in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~Secretary and a determination made as to whether or not the surface mining operations are subject to the site specific bonding criteria set forth herein. The determinations shall be made in accordance with the following:

Existing permits in the four major categories described in subdivision 11.65.b of this subsection shall be reviewed by the ~~Director~~Secretary at the time of renewal or mid-term review, whichever occurs first, and a determination made as to the adequacy of existing bond and shall not be renewed by the ~~Director~~Secretary until the appropriate amount of bond has been posted. ~~The existing bond may be determined to be adequate only if all the following criteria are met:~~

Summary of Agreed Upon Changes between WVDEP and the WV Coal Association

38CSR2

January 7, 2002

~~11.6.a.1. The operation is active at the time of application for renewal or mid-term review, whichever occurs first.~~

~~11.6.a.2. An approved mining and reclamation plan which is in accordance with the requirements of subsection 14.15 of this rule has been made a part of the permit, or has been submitted as a permit revision and is pending approval.~~

~~11.6.a.3. The operation is in compliance with the requirements of subsection 14.15 of this rule.~~

~~11.6.a.4. The operation is not under a cessation order or show cause order.~~

~~11.6.a.5. There are not delinquent civil penalties associated with the permit.~~

~~Where the operation has an approved inactive status, it shall be subject to the site specific bond criteria of this subsection at the time of permit renewal or mid-term review, whichever occurs first, and shall not be renewed by the Director until the appropriate amount of bond has been posted.~~

**This is to update this section.**

**Page 144 - 12.4.e.** The operator, or permittee, or other responsible party shall ...

**This is to satisfy required program amendments identified in the Federal Register**

**Page 145 - 12.5.d.** Expenditures from the special reclamation fund for water quality enhancement projects shall not exceed twenty five percent (25%) of the funds gross annual revenue as provided in subsection g., section 11 of the Act.

**This is to satisfy required program amendments identified in the Federal Register.**

**Page 145 -12.5.e.** On or before the thirty-first day of December, ~~one thousand nine hundred ninety three~~ two thousand and two and every year thereafter, the ~~Director~~Secretary shall submit to the Legislature a detailed report and inventory, which includes but is not limited to dates of mining and abandonment, with all supporting data on acid mine drainage bond forfeiture sites.

**This is to be consistent with the recent Code change.**

**Page 162 - 14.12.a.1.** Procedures to Obtain a Variance. The ~~Director~~Secretary may grant a variance from the requirements for restoring the mined land in steep slope areas to approximate original contour under the following terms and conditions:

14.12.a.1. The permit area is located on steep slopes as defined in subdivision 14.8.a of this rule and the land after reclamation is suitable for industrial, commercial, residential, ~~commercial forestry,~~ or public use (including recreational facilities);

**This is to satisfy required program amendments identified in the August 18, 2000 Federal Register**

**Summary of Agreed Upon Changes between WVDEP and the WV Coal Association**

**38CSR2**

January 7, 2002

**Page 170 – 14.15.a.** Spoil returned to the mined-out area shall be backfilled and graded to the approximate original contour ~~with all highwalls eliminated~~ unless, a waiver is granted pursuant to WV Code § 22-3-13(c)(2) with all highwalls eliminated.....

Incorporate into the required mining and reclamation plan a detailed site specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ratio of disturbed versus reclaimed area throughout the life of the operation;

**Page 171 - 14.15.b.6.** Changed There to Where

~~Page 171 - 14.15.b.6.B.1. Incorporate into the required mining and reclamation plan a detailed site specific description of the timing, sequence, and areal extent of each progressive phase of the mining and reclamation operation which reflects how the mining operations and the reclamation operations will be coordinated so as to minimize the amount of disturbed, unreclaimed area, and to quickly establish and maintain a specified ration of disturbed versus reclaimed area throughout the life of the operation;~~

**Page 173 - 14.15.f.** Variance - Permit Applications. The ~~Director~~Secretary may grant approval of a mining and reclamation plan for a permit which seeks a variance to one or more of the standards set forth in this subsection, if on the basis of site specific conditions and sound scientific and/or engineering data, the applicant can demonstrate that compliance with one or more of these standards is not technologically or economically feasible. ~~infeasible~~. Furthermore, the amount of bond for the operation shall be based on the maximum amount per acre specified in WV Code §22-3-12(c)(1). The variance request shall be in writing and must contain the following elements:

**Page 173 – 14.15.f.5.** A detailed economic analysis including a discussion and feasibility analysis of possible alternatives that were considered must be submitted for variance requests that use economics as the basis for the request.

**Page 173 - 14.15.j.** Revision. A revision is required prior to any change in mining methods which would affect the standards contained in this section.

**Rest of 14.15 renumbered.**

Summary of Agreed Upon Changes between WVDEP and the WV Coal Association

38CSR2

January 7, 2002

**Page 181 – 182 17.4 and 17.6.a**

17.4. Request for Assistance. Each applicant requesting assistance shall provide information on forms provided by the ~~Director~~Secretary in an application that shall be clear and concise and shall be provided in a format prescribed by the ~~Director~~Secretary and/or a format required by the Federal Office of Surface Mining Reclamation and Enforcement. Each application for assistance shall include the following information:

17.4.a. A statement of the operator's intent to file a permit application;

17.4.b. The names and addresses of:

17.4.b.1. The permit applicant; and

17.4.b.2. The operator if different from the applicant.

17.4.c. A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant. The schedule shall include for each location:

17.4.c.1. The operator or company name under which coal is or will be mined;

17.4.c.2. The permit number and Mine Safety and Health Administration (MSHA) number;

17.4.c.3. The actual coal production during the year preceding the year for which the applicant applies for assistance and production that may be attributed to the applicant; and

17.4.c.4. The estimated coal production and any production which may be attributed to the applicant for each year of the proposed permit.

17.4.d. A description of:

17.4.d.1. The proposed method of coal mining;

17.4.d.2. The anticipated starting and termination dates of mining operations;

17.4.d.3. The number of acres of land to be affected by the proposed mining operation; and

17.4.d.4. A general statement on the probable depth and thickness of the coal resource including a statement of reserves in the permit area and the method by which they were calculated.

17.4.e. A U.S. Geological Survey topographic map at a scale of 1:24,000 or larger or other topographic map of equivalent detail which clearly shows:

17.4.e.1. The area of land to be affected;

17.4.e.2. The location of any existing or proposed test borings; and

**Summary of Agreed Upon Changes between WVDEP and the WV Coal Association**

**38CSR2**

January 7, 2002

17.4.e.3. The location and extent of known workings of any underground mines.

17.4.f. Copies of documents which show that:

17.4.f.1. The applicant has a legal right to enter and commence mining within the permit area; and

17.4.f.2. A legal right of entry has been obtained for the program administrator and laboratory personnel to inspect the lands to be mined and adjacent areas to collect environmental data or to install necessary instruments.

17.6. Qualified Laboratories.

17.6.a. General. A qualified laboratory means a designated public agency, private consulting firm, institution, or analytical laboratory that can provide the required determination of a probable hydrologic consequences or statement of results of test borings or core samplings or other services as specified under the Small Operator Assistance Program and that is approved by the DivisionDepartment of Environmental Protection as a SOAP contractor.

**This is to address an item in the 732 letter dated July 22, 1997.**

**Pages 218 – 221 – New Section 25. - This is to address an item in the 732 letter dated February 7, 1990.**