WEST VIRGINIA
SECRETARY OF STATE
JOE MANCHIN, III
ADMINISTRATIVE LAW DIVISION

Form #3

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OFFICE WEST VIRGINIA
SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE
AND
FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: WV Environmental Quality Board TITLE NUMBER: 46

CITE AUTHORITY: 22B-3-4

AMENDMENT TO AN EXISTING RULE: YES X NO ___

IF YES, SERIES NUMBER OF RULE BEING AMENDED: One

TITLE OF RULE BEING AMENDED: Requirements Governing Water Quality Standards

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ___

TITLE OF RULE BEING PROPOSED: ___

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

Authorized Signature

$11.20

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Requirements Governing Water Quality Standards

Type of Rule: X Legislative _____ Interpretive _____ Procedural

Agency: WV Environmental Quality Board

Address: 1615 Washington St., E.
Suite 301
Charleston, WV 25311-2126

1. Effect of Proposed rule:

N/A

	ANNUAL		FISCAL YEAR		
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST					
PERSONAL SERVICES					
CURRENT EXPENSE					
REPAIRS & ALTERATIONS					
EQUIPMENT					
OTHER					

2. Explanation of Above Estimates:

N/A

3. Objectives of These Rules:
The proposed revision will extend Weirton Steel Corporation's current exemption from the "half-mile rule" until Septebmer 1, 2004.

Rule Title: Requirements Governing Water Quality Standards

4. Explanation of Overall Economic Impact of Proposed Rule:

   A. Economic Impact on State Government:
   None anticipated.

   B. Economic Impact on Political Subdivisions; Specific Industries; Specific Groups of Citizens: This is a site-specific exemption which is not anticipated to have economic impact beyond that to Weirton Steel Corporation.

   C. Economic Impact on Citizens/Public at Large.

   None Anticipated.

Date: January 2, 2003

Signature of Agency Head or Authorized Representative:

46 CSR 1
Requirements Governing Water Quality Standards
January 2, 2003

Summary of Proposed Changes

Section 7.2.a.2.of the Water Quality Standards rule establishes a one-half mile zone above public water supply intakes in which no exceedences of the numeric criteria for the Public Water Supply designated use ("Category A") are allowed. This provision is known as the "half-mile rule." An exemption from this provision is included as the last sentence in section 7.2.a.2, which provides that until June 30, 2003, the one-half mile zone requirements do not apply to the segment of the Ohio River between mile points 61.0 and 63.5. The exemption was granted to Weirton Steel in 1999.

The change proposed herein is to revise the exemption by revising the date of the exemption. With that revision, the last sentence will read:

> Until September 1, 2004, the one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

The result of this revision will be that Weirton Steel's exemption from the half-mile rule will be extended for an additional 18 months.

QUESTIONNAIRE

(Please include a copy of this form with each filing of your rule: Notice of Public Hearing or Comment Period; Proposed Rule, and if needed, Emergency and Modified Rule.)

DATE: January 2, 2003

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

FROM:(*Agency Name, Address & Phone No.*) WV Environmental Quality Board
1615 Washington St., E.
Suite 301
Charleston, WV 25311-2126

LEGISLATIVE RULE TITLE: Requirements Governing Water Quality Standards

1. Authorizing statute(s) citation 22B-3-4

2. a. Date filed in State Register with Notice of Hearing or Public Comment Period:

November 15, 2002

b. What other notice, including advertising, did you give of the hearing?

The rule packet was posted on the EQB website on November 19, 2002, and also sent out via e-mail to the Board's e-mail list which is comprised of approximately 150 addresses. The Notice of Pubilc Hearing was published in the Charleston Gazette on December 3, 2002, the Weirton Daily Times on December 4, 2002, and the Charleston Daily Mail on December 5, 2002.

c. Date of Public Hearing(s) ***or*** Public Comment Period ended:

December 16, 2002

d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments.

Attached X No comments received _____

e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)

January 2, 2003

f. **Name, title, address and <u>phone/fax/e-mail numbers</u>** of agency person(s) to receive all *written correspondence* regarding this rule: (Please type)

Elizabeth Chatfield, Technical Advisor
1615 Washington St., E., Suite 301
Charleston, WV 25311-2126

Phone: 558-4002
Fax: 558-4116
email: lchatfield@aqbeqb.state.wv.us

g. **<u>IF DIFFERENT</u> FROM ITEM 'f'**, please give **Name, title, address and phone number(s)** of agency person(s) who wrote and/or has responsibility for the contents of this rule: (Please type)

Same

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

a. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

N/A

b. Date of hearing or comment period:

N/A

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

N/A

d. Attach findings and determinations and reasons:

Attached N/A

b. Date of hearing or comment period:

N/A

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

N/A

d. Attach findings and determinations and reasons:

Attached N/A

46 CSR 1
Requirements Governing Water Quality Standards
January 2, 2003

Statement of Circumstances Requiring Proposed Amendments

Section 7.2.a.2 of the Water Quality Standards rule outlines a requirement that segments of streams within one-half mile above public water supply intakes must be protected by prohibiting the discharge of any pollutants in excess of the concentrations designated for the Public Water Supply designated use ("Category A"). This provision is known as the "half-mile rule".

An exemption from this provision was granted to Weirton Steel Corporation in 1999, included as the last sentence of §7.2.a.2, which provides:

> Until June 30, 2003, the one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

Weirton Steel requested this exemption because the facility has a permitted discharge point, outlet 002, which is located within the half-mile zone above its own potable water supply intake on the Ohio River. At the time of its original request, Weirton Steel was pursuing the option of closing down its drinking water plant and purchasing all of its drinking water from the City of Weirton. The exemption was granted for a period running through June 30, 2003, in order to provide time for Weirton Steel to pursue that option. To date, negotiations between Weirton Steel and the City of Weirton have not resulted in an agreement for the purchase of drinking water by Weirton Steel.

Weirton Steel contacted the Board on August 26, 2002, with a request that the facility's exemption from the half-mile rule be made permanent. The Board considered the request and filed a notice of hearing proposing a revision of section 7.2.a.2 of the rule to remove the end date of the current exemption, which would result in making Weirton's exemption permanent. Comments were submitted during the public comment period, many of which expressed concern about making the exemption permanent and raising questions regarding the potential for human health impacts resulting from the proximity of the discharge to the intake. Based on these comments, the Board is proposing an extension of the exemption until September 1, 2004, so that the Board can review all of the concerns raised during the comment period and to ensure that all human health concerns are addressed.

TITLE 46
LEGISLATIVE RULES
ENVIRONMENTAL QUALITY BOARD
SERIES 1
REQUIREMENTS GOVERNING WATER QUALITY STANDARDS

§46-1-1. General.

1.1. Scope. -- These rules establish requirements governing the discharge or deposit of sewage, industrial wastes and other wastes into the waters of the state and establish water quality standards for the waters of the State standing or flowing over the surface of the State. It is declared to be the public policy of the State of West Virginia to maintain reasonable standards of purity and quality of the water of the State consistent with (1) public health and public enjoyment thereof; (2) the propagation and protection of animal, bird, fish, and other aquatic and plant life; and (3) the expansion of employment opportunities, maintenance and expansion of agriculture and the provision of a permanent foundation for healthy industrial development. (See W. Va. Code §22-11-2.)

1.2. Authority. -- W. Va. Code §22B-3-4

1.3. Filing Date. --

1.4. Effective Date. -

§46-1-2. Definitions.

The following definitions in addition to those set forth in W. Va. Code §22-11-3, shall apply to these rules unless otherwise specified herein, or unless the context in which used clearly requires a different meaning:

2.1. "Board" is the Environmental Quality Board.

2.2. "Chief" is the Chief of the Office of Water Resources of the West Virginia Division of Environmental Protection.

2.3. "Conventional treatment" is the treatment of water as approved by the West Virginia Bureau for Public Health to assure that the water is safe for human consumption.

2.4. "Cumulative" means a pollutant which increases in concentration in an organism by successive additions at different times or in different ways (bio-accumulation).

2.5. "Designated uses" are those uses specified in water quality standards for each water body or segment whether or not they are being attained. (See sections 6.2 - 6.6, herein)

2.6. "Director" is the Director of the West Virginia Division of Environmental Protection.

2.7. "Dissolved metal" is operationally defined as that portion of metal which passes through a 0.45 micron filter.

2.8. "Existing uses" are those uses actually attained in a water body on or after November 28, 1975, whether or not they are included in the water quality standards.

2.9. The "Federal Act" means the Clean Water Act (also known as the Federal Water Pollution Control Act) 33 U.S.C. § 1251 - 1387.

2.10. "High quality waters" are those waters whose quality is equal to or better than the minimum levels necessary to achieve the national water quality goal uses.

2.11. "Intermittent streams" are streams which have no flow during sustained periods of no precipitation and which do not support aquatic life whose life history requires residence in flowing waters for a continuous period of at least six (6) months.

2.12. "Outstanding national resource waters" are those waters whose unique character, ecological or recreational value or pristine nature constitutes a valuable national or State resource.

2.13. "Natural" or "naturally occurring" values or "natural temperature" shall mean for all of the waters of the state:

2.13.a. Those water quality values which exist unaffected by -- or unaffected as a consequence of -- any water use by any person; and

2.13.b. Those water quality values which exist unaffected by the discharge, or direct or indirect deposit of, any solid, liquid or gaseous substance from any point source or non-point source.

2.14. "Non-point source" shall mean any source other than a point source from which pollutants may reach the waters of the

state.

2.15. "Persistent" shall mean a pollutant and its transformation products which under natural conditions degrade slowly in an aquatic environment.

2.16. "Point source" shall mean any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

2.17. "Representative important species of aquatic life" shall mean those species of aquatic life whose protection and propagation will assure the sustained presence of a balanced aquatic community. Such species are representative in the sense that maintenance of water quality criteria will assure both the natural completion of the species' life cycles and the overall protection and sustained propagation of the balanced aquatic community.

2.18. The "State Act" or "State Law" shall mean the West Virginia Water Pollution Control Act, W. Va. Code §22-11-1.

2.19. "Total recoverable" refers to the digestion procedure for certain heavy metals as referenced in 40 CFR 136, as amended June 15, 1990, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act.

2.20. "Trout waters" are streams or stream segments which sustain year-round trout populations. Excluded are those streams or stream segments which receive annual stockings of trout but which do not support year-round trout populations.

2.21. "Water of special concern" are those waters occurring in the categories outlined in section 4.1.c. of the antidegradation policy. This designation provides an intermediate level of antidegradation protection between high quality waters and outstanding national resource waters.

2.22. "Water quality criteria" shall mean levels of parameters or stream conditions that are required to be maintained by these regulations. Criteria may be expressed as a constituent concentration, levels, or narrative statement, representing a quality of water that supports a designated use or uses.

2.23. "Water quality standards" means the combination of water uses to be protected and the water quality criteria to be maintained by these rules.

2.24. "Wetlands" are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

2.25. "Wet weather streams" are streams that flow only in direct response to precipitation or whose channels are at all times above the water table.

§46-1-3. Conditions Not Allowable In State Waters.

3.1. Certain characteristics of sewage, industrial wastes and other wastes cause pollution and are objectionable in all waters of the state. Therefore, the Environmental Quality Board does hereby proclaim that the following general conditions are not to be allowed in any of the waters of the state.

3.2. No sewage, industrial wastes or other wastes present in any of the waters of the state shall cause therein or materially contribute to any of the following conditions thereof:

3.2.a. Distinctly visible floating or settleable solids, suspended solids, scum, foam or oily slicks;

3.2.b. Deposits or sludge banks on the bottom;

3.2.c. Odors in the vicinity of the waters;

3.2.d. Taste or odor that would adversely affect the designated uses of the affected waters;

3.2.e. Materials in concentrations which are harmful, hazardous or toxic to man, animal or aquatic life;

3.2.f. Distinctly visible color;

3.2.g. Concentrations of bacteria which may impair or interfere with the designated uses of the affected waters;

3.2.h. Requiring an unreasonable degree of treatment for the production of potable water by modern water treatment processes as commonly employed; and

3.2.i. Any other condition, including radiological exposure, which adversely alters the integrity of the waters of the State including wetlands; no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed.

§46-1-4. Antidegradation Policy.

4.1. It is the policy of the State of West Virginia that the waters of the state shall be maintained and protected as follows:

4.1.a. Tier 1 Protection. Existing water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. Existing uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included as designated uses within these water quality standards.

4.1.b. Tier 2 Protection. The existing high quality waters of the state must be maintained at their existing high quality unless it is determined after satisfaction of the intergovernmental coordination of the state's continuing planning process and opportunity for public comment and hearing that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. If limited degradation is allowed, it shall not result in injury or interference with existing stream water uses or in violation of state or federal water quality criteria that describe the base levels necessary to sustain the national water quality goal uses of protection and propagation of fish, shellfish and wildlife and recreating in and on the water.

In addition, the Board and the Director shall assure that all new and existing point sources shall achieve the highest established statutory and regulatory requirements applicable to them and shall assure the achievement of cost-effective and reasonable best management practices (BMPs) for non-point source control. If BMPs are demonstrated to be inadequate to reduce or minimize water quality impacts, the Director may require that more appropriate BMPs be developed and applied.

4.1.b.1. High quality waters are those waters meeting the definition at section 2.10 herein.

4.1.b.2. High quality waters may include but are not limited to the following:

4.1.b.2.A. Streams designated by the West Virginia Legislature under the West Virginia Natural Stream

Preservation Act, pursuant to W. Va. Code §22-13-5; and

4.1.b.2.B. Streams listed in West Virginia High Quality Streams, Fifth Edition, prepared by the Wildlife Resources Division, Department of Natural Resources (1986).

4.1.b.2.C. Streams or stream segments which receive annual stockings of trout but which do not support year-round trout populations.

4.1.c. Tier 2.5 Protection. Waters of special concern include all of those waters listed in 60 C.S.R. 5, Appendix A. Waters of special concern may include, but are not limited to naturally reproducing trout streams, federally designated rivers under the "Wild and Scenic Rivers Act," 16 U. S.C. §§ 1271 et seq., waters in state parks and forests, waters in National parks and forests, waters designated under the "National Parks and Recreation Act of 1978," and waters with unique or exceptional aesthetic, ecological, or recreational value. Waters may be nominated for inclusion in this category by any interested party or by the Board on its own initiative.

4.1.d. Tier 3 Protection. In all cases, waters which constitute an outstanding national resource shall be maintained and protected and improved where necessary. Outstanding national resource waters include, but are not limited to, all streams and rivers within the boundaries of Wilderness Areas designated by The Wilderness Act (16 U.S.C. §1131 et seq.) within the State.

Additional waters may be nominated for inclusion in that category by any interested party or by the Board on its own initiative. To designate a nominated water as an outstanding national resource water, the Board shall follow the public notice and hearing provisions as provided in 46 C.S.R. 6.

4.1.e. All applicable requirements of section 316(a) of the Federal Act shall apply to modifications of the temperature water quality criteria provided for in these rules.

§46-1-5. Mixing Zones.

5.1. In the permit review and planning process or upon the request of a permit applicant or permittee, the Chief may establish on a case-by-case basis an appropriate mixing zone.

5.2. The following guidelines and conditions are applicable to all mixing zones:

5.2.a. The Chief will assign, on a case-by-case basis, definable geometric limits for mixing zones for a discharge or a

pollutant or pollutants within a discharge. Applicable limits shall include, but may not be limited to, the linear distances from the point of discharge, surface area involvement, volume of receiving water, and shall take into account other nearby mixing zones. Mixing zones shall take into account the mixing conditions in the receiving stream (i.e: whether complete or incomplete mixing conditions exist). Mixing zones will not be allowed until applicable limits are assigned by the Chief in accordance with this section.

5.2.b. Concentrations of pollutants which exceed the acute criteria for protection of aquatic life set forth in Appendix E, Table 1 shall not exist at any point within an assigned mixing zone or in the discharge itself unless a zone of initial dilution is assigned. A zone of initial dilution may be assigned on a case-by-case basis at the discretion of the Chief. The zone of initial dilution is the area within the mixing zone where initial dilution of the effluent with the receiving water occurs, and where the concentration of the effluent will be its greatest in the water column. Where a zone of initial dilution is assigned by the Chief, the size of the zone shall be determined using one of the four alternatives outlined in section 4.3.3 of US EPA's Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001 PB91-127415, March 1991). Concentrations of pollutants shall not exceed the acute criteria at the edge of the assigned zone of initial dilution. Chronic criteria for the protection of aquatic life may be exceeded within the mixing zone but shall be met at the edge of the assigned mixing zone.

5.2.c. Concentrations of pollutants which exceed the criteria for the protection of human health set forth in Appendix E, Table 1 shall not be allowed at any point unless a mixing zone has been assigned by the Chief after consultation with the Commissioner of the West Virginia Bureau for Public Health. Human health criteria may be exceeded within an assigned mixing zone, but shall be met at the edge of the assigned mixing zone. Mixing zones for human health criteria shall be sized to prevent significant human health risks and shall be developed using reasonable assumptions about exposure pathways. In assessing the potential human health risks of establishing a mixing zone upstream from a drinking water intake, the Chief shall consider the cumulative effects of multiple discharges and mixing zones on the drinking water intake. No mixing zone for human health criteria shall be established on a stream which has a seven (7) day, ten (10) year return frequency of 5 cfs or less.

5.2.d. Mixing zones, including zones of initial dilution, shall not interfere with fish spawning or nursery areas

or fish migration routes; shall not overlap public water supply intakes or bathing areas; cause lethality to or preclude the free passage of fish or other aquatic life; nor harm any threatened or endangered species, as listed in the Federal Endangered Species Act, 15 U.S.C. §1531 et seq.

5.2.e. The mixing zone shall not exceed one-third (1/3) of the width of the receiving stream, and in no case shall the mixing zone exceed one-half (1/2) of the cross-sectional area of the receiving stream.

5.2.f. In lakes and other surface impoundments, the volume of a mixing zone shall not affect in excess of ten (10) percent of the volume of that portion of the receiving waters available for mixing.

5.2.g. A mixing zone shall be limited to an area or volume which will not adversely alter the existing or designated uses of the receiving water, nor be so large as to adversely affect the integrity of the water body.

5.2.h. Mixing zones shall not:

5.2.h.1. Be used for, or considered as, a substitute for technology-based requirements of the Act and other applicable state and federal laws.

5.2.h.2. Extend downstream at any time a distance more than five times the width of the receiving watercourse at the point of discharge.

5.2.h.3. Cause or contribute to any of the conditions prohibited in section 3, herein.

5.2.h.4. Be granted where instream waste concentration of a discharge is greater than 80%.

5.2.h.5. Overlap one another.

5.2.h.6. Overlap any 1/2 mile zone described in section 7.2.a.2 herein.

5.2.i. In the case of thermal discharges, a successful demonstration conducted under section 316(a) of the Act shall constitute compliance with all provisions of this section.

5.2.j. The Chief may waive the requirements of subsections 5.2.e and 5.2.h.2 above if a discharger provides an acceptable demonstration of:

5.2.j.1. Information defining the actual boundaries of the mixing zone in question; and

5.2.j.2. Information and data proving no violation of subsections 5.2.d and 5.2.g above by the mixing zone in question.

5.2.k. Upon implementation of a mixing zone in a permit, the permittee shall provide documentation that demonstrates to the satisfaction of the Chief that the mixing zone is in compliance with the provisions outlined in subsections 5.2.b, 5.2.c, 5.2.e, and 5.2.h.2, herein.

5.2.l. In order to facilitate a determination or assessment of a mixing zone pursuant to this section, the Chief may require a permit applicant or permittee to submit such information as deemed necessary.

§46-1-6. Water Use Categories.

6.1. These rules establish general Water Use Categories and Water Quality Standards for the waters of the State. Unless otherwise designated by these rules, at a minimum all waters of the State are designated for the Propagation and Maintenance of Fish and Other Aquatic Life (Category B) and for Water Contact Recreation (Category C) consistent with Federal Act goals. Incidental utilization for whatever purpose may or may not constitute a justification for assignment of a water use category to a particular stream segment.

6.1.a. Waste assimilation and transport are not recognized as designated uses. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation.

Subcategories of a use may be adopted and appropriate criteria set to reflect varying needs of such subcategories of uses, for example to differentiate between trout water and other waters.

6.1.b. At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under section 301(b) and section 306 of the Federal Act and use of cost-effective and reasonable best management practices for non-point source control. Seasonal uses may be adopted as an alternative to reclassifying a water body or

segment thereof to uses requiring less stringent water quality criteria. If seasonal uses are adopted, water quality criteria will be adjusted to reflect the seasonal uses; however, such criteria shall not preclude the attainment and maintenance of a more protective use in another season. A designated use which is not an existing use may be removed, or subcategories of a use may be established if it can be demonstrated that attaining the designated use is not feasible because:

6.1.b.1. Application of effluent limitations for existing sources more stringent than those required pursuant to section 301 (b) and section 306 of the Federal Act in order to attain the existing designated use would result in substantial and widespread adverse economic and social impact; or

6.1.b.2. Naturally-occurring pollutant concentrations prevent the attainment of the use; or

6.1.b.3. Natural, ephemeral, intermittent or low flow conditions of water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges to enable uses to be met; or

6.1.b.4. Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

6.1.b.5. Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or

6.1.b.6. Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses.

6.1.c. The State shall take into consideration the quality of downstream waters and shall assure that its water quality standards provide for the attainment of the water quality standards of downstream waters.

6.1.d. In establishing a less restrictive use or uses, or subcategory of use or uses, and the water quality criteria based upon such uses, the Board shall follow the requirements for

revision of water quality standards as required by W. Va. Code §22B-3-4 and section 303 of the Federal Act and the regulations thereunder. Any revision of water quality standards shall be made with the concurrence of EPA. The Board's administrative procedural regulations for applying for less restrictive uses or criteria shall be followed.

6.2. Category A -- Water Supply, Public. — - This category is used to describe waters which, after conventional treatment, are used for human consumption. This category includes streams on which the following are located:

6.2.a. All community domestic water supply systems;

6.2.b. All non-community domestic water supply systems, (i.e. hospitals, schools, etc.);

6.2.c. All private domestic water systems;

6.2.d. All other surface water intakes where the water is used for human consumption. (See Appendix B for partial listing of Category A waters; see section 7.2.a.2, herein for additional requirements for Category A waters.) The manganese human health criteria shall not apply where the discharge point of the manganese is located more than five miles upstream from a known drinking water source.

6.3. Category B -- Propagation and maintenance of fish and other aquatic life. --

This category includes:

6.3.a. Category B1 -- Warm water fishery streams. -- Streams or stream segments which contain populations composed of all warm water aquatic life.

6.3.b. Category B2 -- Trout Waters. -- As defined in section 2.20, herein (See Appendix A for a representative list.)

6.3.c. Category B4 -- Wetlands. -- As defined in section 2.24, herein; certain numeric stream criteria may not be appropriate for application to wetlands (see Appendix E, Table 1).

6.4. Category C -- Water contact recreation. -- This category includes swimming, fishing, water skiing and certain types of pleasure boating such as sailing in very small craft and

outboard motor boats. (See Appendix D for a representative list of category C waters.)

6.5. Category D. -- Agriculture and wildlife uses.

6.5.a. Category D1 -- Irrigation. -- This category includes all stream segments used for irrigation.

6.5.b. Category D2 -- Livestock watering. -- This category includes all stream segments used for livestock watering.

6.5.c. Category D3 -- Wildlife. -- This category includes all stream segments and wetlands used by wildlife.

6.6. Category E -- Water supply industrial, water transport, cooling and power. -- This category includes cooling water, industrial water supply, power production, commercial and pleasure vessel activity, except those small craft included in Category C.

6.6.a. Category E1 -- Water Transport. -- This category includes all stream segments modified for water transport and having permanently maintained navigation aides.

6.6.b. Category E2 -- Cooling Water. -- This category includes all stream segments having one (1) or more users for industrial cooling.

6.6.c. Category E3 -- Power production. -- This category includes all stream segments extending from a point 500 feet upstream from the intake to a point one half (1/2) mile below the wastewater discharge point. (See Appendix C for representative list.)

6.6.d. Category E4 -- Industrial. -- This category is used to describe all stream segments with one (1) or more industrial users. It does not include water for cooling.

§46-1-7. West Virginia Waters.

7.1. Major River Basins and their Alphanumeric System. All streams and their tributaries in West Virginia shall be individually identified using an alphanumeric system as identified in the "Key to West Virginia Stream Systems and Major Tributaries" (1956) as published by the Conservation Commission of West Virginia and revised by the West Virginia Department of Natural Resources, Division of Wildlife (1985).

7.1.a. J - James River Basin. All tributaries to the

West Virginia - Virginia State line.

7.1.b. P - Potomac River Basin. All tributaries of the main stem of the Potomac River to the West Virginia - Maryland - Virginia State line to the confluence of the North Branch and the South Branch of the Potomac River and all tributaries arising in West Virginia excluding the major tributaries hereinafter designated:

7.1.b.1. S - Shenandoah River and all its tributaries arising in West Virginia to the West Virginia - Virginia State line.

7.1.b.2. PC - Cacapon River and all its tributaries.

7.1.b.3. PSB - South Branch and all its tributaries.

7.1.b.4. PNB - North Branch and all tributaries to the North Branch arising in West Virginia.

7.1.c. M - Monongahela River Basin. The Monongahela River Basin main stem and all its tributaries excluding the following major tributaries which are designated as follows:

7.1.c.1. MC - Cheat River and all its tributaries except those listed below:

7.1.c.1.A. MCB - Blackwater River and all its tributaries.

7.1.c.2. MW - West Fork River and all its tributaries.

7.1.c.3. MT - Tygart River and all its tributaries except those listed below:

7.1.c.3.A. MTB - Buckhannon River and all its tributaries.

7.1.c.3.B. MTM - Middle Fork River and all its tributaries.

7.1.c.4. MY - Youghigheny River and all its tributaries to the West Virginia - Maryland State line.

7.1.d. O Zone 1 - Ohio River - Main Stem. The main stem of the Ohio River from the Ohio - Pennsylvania - West

Virginia state line to the Ohio - Kentucky - West Virginia State line.

7.1.e. O Zone 2 - Ohio River - Tributaries. All tributaries of the Ohio River excluding the following major tributaries:

7.1.e.1. LK - Little Kanawha River. The Little Kanawha River and all its tributaries excluding the following major tributary which is designated as follows:

7.1.e.1.A. LKH - Hughes River and all its tributaries.

7.1.e.2. K - Kanawha River Zone 1. The main stem of the Kanawha River from mile point 0, at its confluence with the Ohio River, to mile point 72 near Diamond, West Virginia.

7.1.e.3. K - Kanawha River Zone 2. The main stem of the Kanawha River from mile point 72 near Diamond, West Virginia and all its tributaries from mile point 0 to the headwaters excluding the following major tributaries which are designated as follows:

7.1.e.3.A. KP - Pocatalico River and all its tributaries.

7.1.e.3.B. KC - Coal River and all its tributaries.

7.1.e.3.C. KE - Elk River and all its tributaries.

7.1.e.3.D. KG - Gauley River. The Gauley River and all its tributaries excluding the following major tributaries which are designated as follows:

7.1.e.3.D.1. KG-19 - Meadow River and all its tributaries.

7.1.e.3.D.2. KG-34 - Cherry River and all its tributaries.

7.1.e.3.D.3. KGC - Cranberry River and all its tributaries.

7.1.e.3.D.4. KGW - Williams River and all its tributaries.

7.1.e.3.E. KN - New River. The New River from its confluence with the Gauley River to the Virginia - West Virginia State line and all tributaries excluding the following major tributaries which are designated as follows:

7.1.e.3.E.1. KNG - Greenbrier River and all its tributaries.

7.1.e.3.E.2. KNB - Bluestone River and all its tributaries.

7.1.e.3.E.3. KN-60 - East River and all its tributaries.

7.1.e.3.E.4. K(L)-81-(1) - Bluestone Lake.

7.1.e.4. OG - Guyandotte River. The Guyandotte River and all its tributaries excluding the following major tributary which is designated as follows:

7.1.e.4.1. OGM - Mud River and all its tributaries.

7.1.e.5. BS - Big Sandy River. The Big Sandy River to the Kentucky - Virginia - West Virginia State lines and all its tributaries arising in West Virginia excluding the following major tributary which is designated as follows:

7.1.e.5.1 BST - Tug Fork and all its tributaries.

7.2. Applicability of Water Quality Standards. The following shall apply at all times unless a specific exception is granted in this section:

7.2.a. Water Use Categories as described in section 6, herein.

7.2.a.1. Based on meeting those Section 6 definitions, tributaries or stream segments may be classified for one or more Water Use Categories. When more than one use exists, they shall be protected by criteria for the use category requiring the most stringent protection.

7.2.a.2. Each segment extending upstream from the intake of a water supply public (Water Use Category A), for a distance of one half (1/2) mile or to the headwater, must be protected by prohibiting the discharge of any pollutants in

excess of the concentrations designated for this Water Use Category in section 8, herein. In addition, within that one half (1/2) mile zone, the Chief may establish for any discharge, effluent limitations for the protection of human health that require additional removal of pollutants than would otherwise be provided by this rule. (If a watershed is not significantly larger than this zone above the intake, the water supply section may include the entire upstream watershed to its headwaters.) Until ~~June 30, 2003,~~ September 1, 2004, the one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

7.2.b. In the absence of any special application or contrary provision, water quality standards shall apply at all times when flows are equal to or greater than the minimum mean seven (7) consecutive day drought flow with a ten (10) year return frequency (7Q10). NOTE: With the exception of section 7.2.c.5 listed herein exceptions do not apply to trout waters nor to the requirements of section 3, herein.

7.2.c. Exceptions: Numeric water quality standards shall not apply: (See section 7.2.d, herein, for site-specific revisions)

7.2.c.1. When the flow is less than 7Q10;

7.2.c.2. In wet weather streams (or intermittent streams, when they are dry or have no measurable flow): Provided, That the existing and designated uses of downstream waters are not adversely affected;

7.2.c.3. In any assigned zone of initial dilution of any mixing zone where a zone of initial dilution is required by section 5.2.b herein, or in any assigned mixing zone for human health criteria or aquatic life criteria for which a zone of initial dilution is not assigned; In zones of initial dilution and certain mixing zones: Provided, That all requirements described in section 5 herein shall apply to all zones of initial dilution and all mixing zones;

7.2.c.4. Where, on the basis of natural conditions, the Board has established a site-specific aquatic life water quality criterion that modifies a water quality criterion set out in Appendix E, Table 1 of this rule. Where a natural condition of a waterbody is demonstrated to be of lower quality than a water quality criterion for the use classes and subclasses in section 6 of this rule, the Board, in its discretion, may establish a site-specific water quality criterion

for aquatic life. This alternate criterion may only serve as the chronic criterion established for that parameter. This alternate criterion must be met at end of pipe. Where the Board decides to establish a site-specific water quality criterion for aquatic life, the natural condition constitutes the applicable water quality criterion. A site-specific criterion for natural conditions may only be established through the legislative rulemaking process in accordance with W.Va. Code §29A-3-1 et seq. and must satisfy the public participation requirements set forth at 40 C.F.R. 131.20 and 40 C.F.R. Part 25. Site-specific criteria for natural conditions may be established only for aquatic life criteria. A public notice, hearing and comment period is required before site-specific criteria for natural conditions are established.

Upon application or on its own initiative, the Board will determine whether a natural condition of a waterbody should be approved as a site-specific water quality criterion. Before it approves a site-specific water quality criterion for a natural condition, the Board must find that the natural condition will fully protect existing and designated uses and ensure the protection of aquatic life. If a natural condition of a waterbody varies with time, the natural condition will be determined to be the actual natural condition of the waterbody measured prior to or concurrent with discharge or operation. The Board will, in its discretion, determine a natural condition for one or more seasonal or shorter periods to reflect variable ambient conditions; and require additional or continuing monitoring of natural conditions.

An application for a site-specific criterion to be established on the basis of natural conditions shall be filed with the Board and shall include the following information:

7.2.c.4.A. A U.S.G.S. 7.5 minute map showing the stream segment affected and showing all existing discharge points and proposed discharge point;

7.2.c.4.B. The alphanumeric code of the affected stream, if known;

7.2.c.4.C. Water quality data for the stream or stream segment. Where adequate data are unavailable, additional studies may be required by the Board;

7.2.c.4.D. General land uses (e.g. mining, agricultural, recreation, residential, commercial, industrial, etc.) as well as specific land uses adjacent to the waters for the affected segment or stream;

7.2.c.4.E. The existing and designated uses of the receiving waters into which the segment in question discharges and the location where those downstream uses begin to occur;

7.2.c.4.F. General physical characteristics of the stream segment, including, but not limited to width, depth, bottom composition and slope;

7.2.c.4.G. Conclusive information and data of the source of the natural condition that causes the stream to exceed the water quality standard for the criterion at issue.

7.2.c.4.H. The average flow rate in the segment and the amount of flow at a designated control point and a statement regarding whether the flow of the stream is ephemeral, intermittent or perennial;

7.2.c.4.I. An assessment of aquatic life in the stream or stream segment in question and in the adjacent upstream and downstream segments; and

7.2.c.4.J. Any additional information or data that the Board deems necessary to make a decision on the application.

7.2.c.5. For the upper Blackwater River from the mouth of Yellow Creek to a point 5.1 miles upstream, when flow is less than 7Q10. Naturally occurring values for Dissolved Oxygen as established by data collected by the dischargers within this reach and reviewed by the Board and Division of Environmental Protection shall be the applicable criteria.

7.2.d. Site-specific applicability of water use categories and water quality criteria - State-wide water quality standards shall apply except where site-specific numeric criteria, variances or use removals have been approved following application and hearing, as provided in 46 C.S.R. 6. (See section 8.3 and section 8.4, herein) The following are approved site-specific criteria, variances and use reclassifications:

7.2.d.1. James River - (Reserved)

7.2.d.2. Potomac River

7.2.d.2.1. Except that a site-specific numeric criterion for aluminum, not to exceed 500 ug/l, shall apply to the section of Opequon Creek from Turkey Run to the

Potomac River.

7.2.d.3. Shenandoah River - (Reserved)

7.2.d.4. Cacapon River - (Reserved)

7.2.d.5. South Branch - (Reserved)

7.2.d.6. North Branch

7.2.d.6.1 Except that the Stony River downstream from the limit of the thermal mixing zone (as established by Board Order of 11/20/75) for the Mount Storm Lake wastewater treatment facility to its confluence with the North Branch of the Potomac River is exempt from the 5°F above natural temperature rise; however, the maximum temperature outside the mixing zone shall not exceed 87°F at any time during the months of May through November and not exceed 73°F at any time during the months of December through April. This exception shall apply until the successful completion of a study conducted pursuant to section 316(a) of the Federal Act or December 31, 1998, whichever comes first.

7.2.d.7. Monongahela River

7.2.d.7.1. Except that flow in the main stem of the Monongahela River, as regulated by the Tygart Reservoir, operated by the U. S. Army Corps of Engineers, is based on a minimum flow of 345 cfs at Lock and Dam No. 8, river mile point 90.8. This exception does not apply to tributaries of the Monongahela River.

7.2.d.8. Cheat River

7.2.d.8.1. Except that in the unnamed tributary of Daugherty Run, approximately one mile upstream of Daugherty Run's confluence with the Cheat River, a site-specific numeric criterion for iron of 3.5 mg/l shall apply and the following frequency and duration requirements shall apply to the chronic numeric criterion for selenium (5ug/l): the four-day average concentration shall not be exceeded more than three times every three years (36 months), on average. Further, the following site-specific numeric criteria shall apply to Fly Ash Run of Daugherty Run: acute numeric criterion for aluminum: 888.5 ug/l and manganese: 5 mg/l.

7.2.d.9. Blackwater River - The Blackwater River below Davis, West Virginia shall be classified as a trout water, Category B2.

7.2.d.10. West Fork River - (Reserved)

7.2.d.11. Tygart River - (Reserved)

7.2.d.12. Buckhannon River - (Reserved)

7.2.d.13. Middle Fork River - (Reserved)

7.2.d.14. Youghiogheny River

7.2.d.14.1 Water Use Categories A and E are excluded from the tributaries of the Youghiogheny River in West Virginia which flow into Maryland.

7.2.d.15. Ohio River Main Stem - (Reserved)

7.2.d.16. Ohio River Tributaries.

7.2.d.16.1. Except that site-specific numeric criteria shall apply to the stretch of Conners Run (0-77-A), a tributary of Fish Creek, from its mouth to the discharge from Conner Run impoundment, which shall not have the Water Use Category A and may contain selenium not to exceed 62 ug/1; and iron not to exceed 3.5 mg/1 as a monthly average and 7 mg/1 as a daily maximum.

7.2.d.16.2. Except that a socio-economic variance shall apply to that segment of Harmon Creek (0-97) from its confluence with the Ohio River to a point 2.2 miles upstream, which shall not have water use Category A designation, and which shall have the following instream criteria: Lead 14 ug/1, Daily Maximum, Zinc 181 ug/1, Daily Maximum, Temperature 100 degree F (monitored per Footnote 12 of the permit); Iron 4.0 mg/1, Monthly Average and 8.0 mg/1, Daily Maximum (monitored per Footnote 12 of the permit). Provided, however, that the criteria for Lead, Zinc, Temperature and Iron shall not apply, and instead the state-wide criteria for these parameters shall apply, unless: Weirton Steel Corporation (1) submits to the Office of Water Resources on or before January 31, 2001 a report setting forth the water quality of the discharge from Outlet 004 for these parameters during calendar year 2000; (2) offers further proposals for any appropriate reductions in the above excepted levels; (3) provides any appropriate additional engineering analysis of potential alternatives for reducing further the concentrations of said parameters in the discharge toward achieving statewide criteria; and (4) continues to submit to the Office of Water Resources on a semi-annual basis, summary reports on the water quality of the discharge from Outlet 004 and the

efforts made by Weirton Steel Corporation during the prior six (6) months to improve the quality of said discharge. Additionally Weirton Steel must determine the water quality of Harmon Creek both immediately upstream of and below the discharge of outlet 004 at the Con Rail Bridge by sampling for Flow, pH, Total and Dissolved Lead, Total and Dissolved Zinc, Iron, Fluoride, Temperature, Turbidity, Oil and Grease and Hardness on at least a monthly basis and submit the results to the Office of Water Resources with the semi-annual report. These exceptions shall be in effect until action by the Environmental Quality Board to revise such exceptions or until June 29, 2004, whichever comes first.

7.2.d.17. Little Kanawha River - (Reserved)

7.2.d.18. Hughes River - (Reserved)

7.2.d.19. Kanawha River Zone 1 - Main Stem

7.2.d.19.1 For the Kanawha River main stem, Zone 1, Water Use Category A shall not apply; and

7.2.d.19.2. The minimum flow shall be 1,960 cfs at the Charleston gauge.

7.2.d.20. Kanawha River Zone 2 and Tributaries.

7.2.d.20.1. For the main stem of the Kanawha River only, the minimum flow shall be 1,896 cfs at mile point 72.

7.2.d.20.2. Except the stretch between the mouth of Little Scary Creek (K-31) and the Little Scary impoundment shall not have Water Use Category A. The following site-specific numeric criteria shall apply to that section: selenium not to exceed 62 ug/1 and copper not to exceed 105 ug/1 as a daily maximum nor 49 ug/1 as a 4-day average.

7.2.d.20.3. Except for Simmons Creek (K-54) from its mouth to a point 1200 feet upstream to which the following site-specific numeric criteria shall apply: a maximum daily temperature not to exceed 38°C (100°F) nor a monthly average temperature to exceed 34°C. This exception shall apply until the successful completion of a study conducted pursuant to section 316(a) of the Federal Act or May 30, 1998, whichever comes first.

7.2.d.21. Pocatalico River - (Reserved)

7.2.d.22. Coal River - (Reserved)

7.2.d.23. Elk River - (Reserved)

7.2.d.24. Gauley River - (Reserved)

7.2.d.25. Meadow River - (Reserved)

7.2.d.26. Cherry River - (Reserved)

7.2.d.27. Cranberry River - (Reserved)

7.2.d.28. Williams River - (Reserved)

7.2.d.29. New River - (Reserved)

7.2.d.30. Greenbrier River - (Reserved)

7.2.d.31. Bluestone River - (Reserved)

7.2.d.32. Bluestone Lake

7.2.d.33. East River - (Reserved)

7.2.d.34. Guyandotte River - (Reserved)

7.2.d.35. Mud River - (Reserved)

7.2.d.36. Big Sandy River - (Reserved)

7.2.d.37. Tug Fork River - (Reserved)

§46-1-8. Specific Water Quality Criteria.

8.1. Charts of specific water quality criteria are included in Appendix E, Table 1.

8.1.a. Specific state (i.e. total, total recoverable, dissolved, valence, etc.) of any parameter to be analyzed shall follow 40 CFR 136, Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act, as amended, June 15, 1990. (See also 47 C.S.R. 10, section 7.3 - National Pollutant Discharge Elimination System (NPDES) Program.)

8.1.b. Compliance with aquatic life water quality criteria expressed as dissolved metal shall be determined based on dissolved metals concentrations.

8.1.b.1. The aquatic life criteria for all metals listed in Appendix E, Table 2 shall be converted to a dissolved

concentration by multiplying each numerical value or criterion equation from Appendix E, Table 1 by the appropriate conversion factor (CF) from Appendix E, Table 2.

8.1.b.2. Permit limits based on dissolved metal water quality criteria shall be prepared in accordance with the U.S. EPA document "The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion, EPA 823-B-96-007 June 1996.

8.1.b.3. NPDES permit applicants may petition the Office of Water Resources of the Division of Environmental Protection (OWR) to develop a site-specific translator consistent with the provisions in this section. The OWR may, on a case-by-case basis require an applicant applying for a translator to conduct appropriate sediment monitoring through SEM/AVS ratio, bioassay or other approved methods to evaluate effluent limits that prevent toxicity to aquatic life.

8.1.c. An "X" or numerical value in the use columns of Appendix E, Table 1 shall represent the applicable criteria.

8.1.d. Charts of water quality criteria in Appendix E, Table 1 shall be applied in accordance with major stream and use applications, sections 6 and 7, herein.

8.2. Criteria for Toxicants

8.2.a. Toxicants which are carcinogenic have human health criteria (Water Use Categories A and C) based upon an estimated risk level of one additional cancer case per one million persons (10^{-6}) and are indicated in Appendix E, Table 1 with an endnote (^{b}).

8.2.b. A final determination on the critical design flow for carcinogens is not made in this rule, in order to permit further review and study of that issue. Following the conclusion of such review and study, the Legislature may again take up the authorization of this rule for purposes of addressing the critical design flow for carcinogens: Provided, That until such time as the review and study of the issue is concluded or until such time as the Legislature may again take up the authorization of this rule, the regulatory requirements for determining effluent limits for carcinogens shall remain as they were on the date this rule was proposed.

8.3. Variances from Specific Water Quality Criteria. A variance from numeric criteria may be granted to a discharger if it can be demonstrated that the conditions outlined in

subsections 6.1.b.A - F, herein, limit the attainment of one or more specific water quality criteria. Variances shall apply only to the discharger to whom they are granted and shall be reviewed by the Board at least every three years. In granting a variance, the requirements for revision of water quality standards in 46 CSR 6 shall be followed.

8.4. Site-specific numeric criteria. The Board may establish numeric criteria different from those set forth in Appendix E, Table 1 for a stream or stream segment upon a demonstration that existing numeric criteria are either over-protective or under-protective of the aquatic life residing in the stream or stream segment. A site-specific numeric criterion will be established only where the numeric criterion will be fully protective of the aquatic life and the existing and designated uses in the stream or stream segment. The site-specific numeric criterion may be established by conducting a Water Effect Ratio study pursuant to the procedures outlined in US EPA's "Interim Guidance on the Determination and Use of Water-Effect Ratios for Metals" (February 1994); other methods may be used with prior approval by the Board. In adopting site-specific numeric criteria, the requirements for revision of water quality standards set forth in 46 CSR 6 shall be followed.

§46-1-9. Establishment Of Safe Concentration Values.

When a specific water quality standard has not been established by these rules and there is a discharge or proposed discharge into waters of the State, the use of which has been designated a Category B1, B2, B3 or B4, such discharge may be regulated by the Chief where necessary to protect State waters through establishment of a safe concentration value as follows:

9.1. Establishment of a safe concentration value shall be based upon data obtained from relevant aquatic field studies, standard bioassay test data which exists in substantial available scientific literature, or data obtained from specific tests utilizing one (1) or more representative important species of aquatic life designated on a case-by-case basis by the Chief and conducted in a water environment which is equal to or closely approximates that of the natural quality of the receiving waters.

9.2. In those cases where it has been determined that there is insufficient available data to establish a safe concentration value for a pollutant, the safe concentration value shall be determined by applying the appropriate application factor as set forth below to the 96-hour LC 50 value. Except where the Chief determines, based upon substantial available scientific data that an alternate application factor exists for a pollutant, the

following appropriate application factors shall be used in the determination of safe concentration values:

9.2.a. Concentrations of pollutants or combinations of pollutants that are not persistent and not cumulative shall not exceed 0.10 (1/10) of the 96-hour LC 50.

9.2.b. Concentrations of pollutants or combinations of pollutants that are persistent or cumulative shall not exceed 0.01 (1/100) of the 96-hour LC 50.

9.3. Persons seeking issuance of a permit pursuant to these rules authorizing the discharge of a pollutant for which a safe concentration value is to be established using special bioassay tests pursuant to subsection 9.1 of this section shall perform such testing as approved by the Chief and shall submit all of the following in writing to the Chief:

9.3.a. A plan proposing the bioassay testing to be performed.

9.3.b. Such periodic progress reports of the testing as may be required by the Chief.

9.3.c. A report of the completed results of such testing including, but not limited to, all data obtained during the course of testing, and all calculations made in the recording, collection, interpretation and evaluation of such data.

9.4. Bioassay testing shall be conducted in accordance with methodologies outlined in the following documents: U.S. EPA Office of Research and Development Series Publication, Methods for Measuring the Acute Toxicity (EPA/600/4-90/027F, August 1993, 4th Edition) or Short Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/600/4-89/001), March 1989; Standard Methods for the Examination of Water and Wastewater (18th Edition); or ASTM Practice E 729-88 for Conducting Acute Toxicity Tests with Fishes, Macroinvertebrates and Amphibians as published in Volume 11.04 of the 1988 Annual Book of ASTM Standards. Test waters shall be reconstituted according to recommendations and methodologies specified in the previously cited references or methodologies approved in writing by the Chief.

APPENDIX A
CATEGORY B-2 - TROUT WATERS

This list contains known trout waters and is not intended to exclude any waters which meet the definition in Section 2.20.

River Basin	County	Stream
James River		
J	Monroe	South Fork Potts Creek
Potomac River		
P	Jefferson	Town Run
P	"	Rocky Marsh Run
P	Berkeley	Opequon Creek
P	"	Tuscarora Creek (Above Martinsburg)
P	"	Middle Creek (Above Route 30 Bridge)
P	"	Mill Creek
P	"	Hartland Run
P	"	Mill Run
P	"	Tillance Creek
P	Morgan	Meadow Branch
PS	Jefferson	Flowing Springs Run (Above Halltown)
PS	"	Cattail Run
PS	"	Evitt's Run
PS	"	Big Bullskin Run
PS	"	Long Marsh Run
PC	Hampshire	Cold Stream
PC	"	Edwards Run and Impoundment
PC	"	Dillons Run
PC	Hardy	Lost River
PC	"	Camp Branch
PC	"	Lower Cove Run
PC	"	Moores Run
PC	"	North River (Above Rio)
PC	"	Waites Run
PC	"	Trout Run
PC	"	Trout Pond (Impoundment)
PC	"	Warden Lake (Impoundment)
PC	"	Rock Cliff Lake (Impoundment)
PSB	Hampshire	Mill Creek
PSB	"	Mill Run
PSB	Hardy	Dumpling Creek
PSB	Grant-Pendleton	North Fork South Branch
PSB	Grant	North Fork Lunice Creek
PSB	"	South Fork Lunice Creek
PSB	"	South Mill Creek (Above Hiser)
PSB	"	Spring Run
PSB	Pendleton	Hawes Run (Impoundment)
PSB	"	Little Fork
PSB	"	South Branch (Above North Fork)

PSB	"	Senena Creek
PSB	"	Laurel Fork
PSB	"	Big Run
PNB	Mineral	North Fork Patterson Creek
PNB	"	Fort Ashby (Impoundment)
PNB	"	New Creek
PNB	"	New Creek Dam 14 (Impoundment)
PNB	"	Mill Creek (Above Markwood)

Monongahela River

M	Monongalia-Marion	Whiteday Creek (Above Smithtown)
MC	Monongalia	Morgan Run
MC	"	Coopers Rock (Impoundment)
MC	"	Blaney Hollow
MC	Preston	Laurel Run
MC	"	Elsey Run
MC	"	Saltlick Creek
MC	"	Buffalo Creek
MC	"	Wolf Creek
MC	Tucker	Clover Run
MC	"	Elklick Run
MC	"	Horseshoe Run
MC	"	Maxwell Run
MC	"	Red Creek
MC	"	Slip Hill Mill Branch
MC	"	Thomas Park (Impoundment)
MC	"	Blackwater River (Above Davis)
MC	"	Blackwater River (Below Davis) (insert date adopted)
MC	Randolph	Camp Five Run
MC	"	Dry Fork (Above Otter Creek)
MC	"	Glady Fork
MC	"	Laurel Fork
MC	"	Gandy Creek (Above Whitmer)
MC	"	East Fork Glady Fork (Above C & P Compressor Station)
MC	Randolph	Shavers Fork (Above Little Black Fork)
MC	"	Three Spring Run
MC	"	Spruce Knob Lake (Impoundment)
MW	Harrison	Dog Run (Pond)
MW	Lewis	Stonecoal
MT	Barbour	Brushy Fork (Above Valley Furnace)
MT	"	Teter Creek Lake (Impoundment)
MT	"	Mill Run
MT	Taylor-Barbour	Tygart Lake Tailwaters (Above Route 119 Bridge)
MT	Preston	Roaring Creek (Above Little Lick Branch)
MT	Randolph	Tygart River (Above

Huttonsville)		
MT	"	Elkwater Fork
MT	"	Big Run
MTB	Upshur-Randolph-Lewis	Right Fork Buckhannon River
MTB	Upshur	Buckhannon River (Above Beans Mill)
MTB	Upshur	French Creek
MTB	Upshur-Randolph	Left Fork Right Fork
MTN	Upshur	Right Fork Middle Fork River
MTM	Randolph	Middle Fork River (Above Cassity)
MY	Preston	Rhine Creek
Little Kanawha River		
LK	Upshur	Left Fork-Right Fork Little Kanawha River)
LK	Upshur-Lewis	Little Kanawha River (Above Wildcat)
Kanawha River		
KE	Braxton	Sutton Reservoir
KE	"	Sutton Lake Tailwaters (Above Route 38/5 Bridge)
KE	Webster	Back Fork
KE	"	Desert Fork
KE	"	Fall Run
KE	"	Laurel Fork
KE	"	Left Fork Holly River
KE	"	Sugar Creek
KE	"	Elk River (Above Webster Springs)
KC	Raleigh	Stephens Lake (Impoundment)
KC	"	Marsh Fork (Above Sundial)
KG	Nicholas	Summersville Reservoir (Impoundment)
KG	"	Summersville Tailwaters (Above Collison Creek)
KG	Nicholas	Deer Creek
KG	Randolph-Webster	Gauley River (Above Moust Coal Tipple)
KG	Fayette	Glade Creek
KG	Nicholas	Hominy Creek
KG	"	Anglins Creek
KG	Greenbrier	Big Clear Creek
KG	"	Little Clear Creek and Laurel Run
KG	"	Meadow Creek
KG	Fayette	Wolf Creek
KG	Nicholas	Cherry River
KG	Greenbrier-Nicholas	Laurel Creek
KG	" "	North Fork Cherry River
KG	Greenbrier	Summit Lake (Impoundment)

KG	Greenbrier-Nicholas	South Fork Cherry River
KGC	Pocahontas-Webster-Nicholas	Cranberry River
KGC	Pocahontas	South Fork Cranberry River
KGW	Pocahontas	Tea Creek
KGW	Pocahontas-Webster	Williams River (Above Dyer)
KN	Raleigh	Glade Creek
KN	Summers	Meadow Creek
KN	Fayette	Mill Creek
KN	"	Laurel Creek (Above Cotton Hill)
KN	Raleigh	Pinch Creek
KN	Monroe	Rich Creek
KN	"	Turkey Creek
KN	Fayette	Dunloup Creek (Downstream from Harvey Sewage Treatment Plant)
KN	Mercer	East River (Above Kelleysville)
KN	"	Pigeon Creek
KN	Monroe	Laurel Creek
KNG	Monroe	Kitchen Creek (Above Gap Mills)
KNG	Greenbrier	Culverson Creek
KNG	"	Milligan Creek
KNG	Greenbrier-Monroe	Second Creek (Rt. 219 Bridge to Nickell's Mill)
KNG	Greenbrier	North Fork Anthony Creek
KNG	"	Spring Creek
KNG	"	Anthony Creek (Above Big Draft)
KNG	Pocahontas	Watoga Lake
KNG	"	Beaver Creek
KNG	"	Knapp's Creek
KNG	"	Hills Creek
KNG	"	North Fork Deer Creek (Above Route 28/5)
KNG	"	Deer Creek
KNG	"	Sitlington Creek
KNG	"	Stoney Creek
KNG	"	Swago Creek
KNG	"	Buffalo Fork (Impoundment)
KNG	"	Seneca (Impoundment)
KNG	"	Greenbrier River (Above Hosterman)
KNG	"	West Fork-Greenbrier River (Above the impoundment at the tannery)
KNG	"	Little River-East Fork
KNG	"	Little River-West Fork
KNG	"	Five Mile Run
KNG	"	Mullenax Run
KNG	"	Abes Run
KNB	Mercer	Marsh Fork
KNB	"	Camp Creek

OG	Wyoming	Pinnacle creek
BST	McDowell	Dry Fork (Above Canebrake)

APPENDIX B

This list contains known waters used as public water supplies and is not intended to exclude any waters as described in section 6.2, herein.

River Basin	County	Operating Company	Source
Shenandoah River			
S	Jefferson	Charlestown Water	Shenandoah River
Potomac River			
P	Jefferson	3-M Company	Turkey Run
P	"	Shepherdstown Water	Potomac River
P	"	Harpers Ferry Water	Elk Run
P	Berkeley	DuPont Potomac River Works	Potomac River
P	"	Berkeley County PSD	Le Feure Spring
P	"	Opequon PSD	Quarry Spring
P	"	Hedgesville PSD	Speck Spring
P	Morgan	Paw Paw Water	Potomac River
PSB	Hampshire	Romney Water	South Branch Potomac River
PSB	"	Peterkin Conference Center	Mill Run
PSB	Hardy	Moorefield Municipal Water	South Fork River
PSB	Pendleton	U.S. Naval Radio Sta.	South Fork River
PSB	"	Circleville Water Inc.	North Fork of South Branch, Potomac River
PSB	Grant	Mountain Top PSD	Mill Creek, Impoundment
PSB	"	Petersburg Municipal Water	South Branch, Potomac River
PNB	Grant	Island Creek Coal	Impoundment
PNB	Mineral	Piedmont Municipal Water	Savage River, Maryland
PNB	"	Keyser Water	New Creek
PNB	"	Fort Ashby PSD	Lake
Monongahela River			
M	Monongalia Monongahela	Morgantown Water Comm.	Colburn Creek & River
M	"	Morgantown Ordinance Works	Monongahela River
M	Preston	Preston County PSD	Deckers Creek
M	Monongalia	Blacksville # 1 Mine	Impoundment
M	"	Loveridge Mine	Impoundment
M	"	Consolidation Coal Co.	Impoundment
M	Preston	Mason Town Water	Block Run
MC	Preston	Fibair Inc.	Impoundment
MC	Monongalia	Cheat Neck PSD	Cheat Lake
MC	"	Lakeview County Club	Cheat Lake-Lake Lynn

MC	"	Union Districk PSD	Cheat Lake-Lake Lynn
MC	"	Cooper's Rock State Park	Impoundment
MC	Preston	Kingwood Water	Cheat River
MC	"	Hopemount State Hosp.	Snowy Creek
MC	"	Rowlesburg Water	Keyser Run & Cheat River
MC	"	Albright	Cheat River
MC	Tucker	Parsons Water	Shavers & Elk Lick Fork
MC	"	Thomas Municipal	Thomas Reservoir
MC	"	Hamrick PSD	Dry Fork
MC	"	Douglas Water System	Long Run
MC	"	Davis Water	Blackwater River
MC	"	Hambleton Water System	Roaring Creek
MC	"	Canaan Valley State Park	Blackwater River
MC	Pocahontas	Cheat Mt. Sewer	Shavers Lake
MC	"	Snowshoe Co. Water	Shavers Fork
MC	Randolph	Womelsdorf Water	Yokum Run
MW	Harrison	Lumberport Water	Jones Run
MW	"	Clarksburg Water Bd.	West Fork River
MW	"	Bridgeport Mun. Water	Deecons & Hinkle Creek
MW	"	Salem Water Board	Dog Run
MW	"	West Milford Water	West Fork River
MW	Lewis	W.V. Water-Weston District	West Fork River
MW	"	Jackson's Mill Camp	Impoundment
MW	"	West Fork River PSD	West Fork River
MW	"	Kennedy Compresssor Station	West Fork River
MW	"	Jane Lew Water Comm.	Hackers Creek
MW	Harrison	Bel-Meadow Country Club	Lake
MW	"	Harrison Power Station	West Fork River
MW	"	Oakdale Portal	Impoundment
MW	"	Robinson Port	Impoundment
MT	Marion	Fairmont Water Comm.	Tygart River
MT	"	Mannington Water	Impoundment
MT	"	Monongah Water Works	Tygart River
MT	"	Eastern Assoc. Coal Corp	Impoundment
MT	"	Four States Water	Impoundment
MT	Harrison	Shinnston Water Dept.	Tygart River
MT	Taylor	Grafton Water	Tygart River-Lake
MT	Barbour	Phillippi Water	Tygart River
MT	"	Bethlehem Mines Corp.	Impoundment
MT	"	Belington Water Works	Tygart River & Mill Run Lake
MT	Randolph	Elkins Municipal Water	Tygart River
MT	"	Beverly Water	Tygart river
MT	"	Valley Water	Tygart River
MT	"	Huttonsville Medium Security Prison	Tygart River
MT	"	Mill Creek Water	Mill Creek
MTB	Upshur	Buckhannon Water Board	Buckhannon River

Ohio River

O	Zone 1	Hancock	Chester Water & Sewer	Ohio River
O	"	Brooke	City of Weirton	Ohio River
O	"	"	Weirton Steel Division	Ohio River
O	"	Ohio	Wheeling Water	Ohio River
O	"	Tyler	Sistersville Mun. Water	Ohio River
O	"	Pleasants	Pleasants Power Station	Ohio River
O	"	Cabel	Huntington Water Corp.	Ohio River
O	"	Marshall	Mobay Chemical Co.	Ohio River
O	"	Wood	E. I. DuPont	Ohio River
O	Zone 2	Marshall	meron Water	Glass House Hollow
O	"	"	New Urindahana Water	Wheeling Creek System
O	"	Wetzel	Pine Grove Water	North Fork, Fishing Creek
O	"	Marshall	Consolidated Coal Co.	Impoundment
O	"	Tyler	Middlebourne Water	Middle Island Creek
O	"	Doddridge	West Union Mun. Water	Middle Island Creek
O	"	Mason	Hidden Valley Country	Lake/Impoundment
O	"	Jackson	Ripley Water	Mill Creek
O	"	Wayne	Wayne Municipal Water	Twelve Pole Creek
O	"	"	East Lynn Lake	East Lynn Lake
O	Zone 2	Wayne	Monterey Coal Co.	Impoundment

Little Kanawha

LK	Wood	Claywood Park PSD	Little Kanawha River
LK	Calhoun	Grantsville Mun. Water	Little Kanawha River
LK	Gilmer	Glenville Utility	Little Kanawha River
LK	"	Consolidated Gas Compressor	Steer Creek
LK	Braxton	Burnsville Water Works	Little Kanawha River
LK	Roane	Spencer Water	Spring Creek Mile Tree Reservoir
LK	Wirt	Elizabeth Water	Little Kanawha River
LKH	Ritchie	Cairo Water	North Fork Hughes River
LKH	"	Harrisville Water	North Fork Hughes River
LKH	"	Pennsboro Water	North Fork Hughes River

Kanawha River

K	Putnam	Buffalo Water	Cross Creek
K	"	Winfield Water	Poplar Fork & Crooked Creek

K	"	South Putnam PSD	Poplar Fork & Crooked Creek
K	Kanawha	Cedar Grove Water	Kanawha River
K	"	Pratt Water	Kanawha River
K	Fayette	Armstrong PSD PO-K1-CO-EL	Kanawha River & Gum Hollow
K	"	Kanawha Water Co.-	Unnamed Tributary Kanawha Beards Fork River
K	Kanawha	Midland Trail School	Impoundment
K	"	Cedar Coal Co.	Impoundment
K	Fayette	Elkem Metals Co.	Kanawha River
K	"	Deepwater PSD	Kanawha River
K	"	Kanawha Falls PSD	Kanawha River
K	"	W.V. Water-Montgomery	Kanawha River

Pocatalico River

KP	Kanawha	Sissonville PSD	Pocatalico River
KP	Roane	Walton PSD	Silcott Fork Dam

Coal River

KC	Kanawha	St. Albans Water	Coal River
KC	"	Washington PSD	Coal River
KC	Lincoln	Lincoln PSD	Coal River
KC	Boone	Coal River PSD	Coal River
KC	"	Whitesville PSD	Coal River
KC	Raleigh	Armco Mine 10	Marsh Fork
KC	"	Armco Steel-Montc. Stickney	Coal River
KC	Raleigh	Peabody Coal	Coal River
KC	"	Stephens Lake Park	Lake Stephens
KC	Boone	W.V. Water-Madison Dist.	Little Coal River
KC	"	Van PSD	Pond Fork
KC	Raleigh	Consol. Coal Co.	Workmans Creek
KC	Boone	Water Ways Park	Coal River

Elk River

KE	Kanawha	Clendenin Water	Elk River
KE	"	W.V. Water-Kanawha Valley District	Elk River
KE	Kanawha	Pinch PSD	Elk River
KE	Clay	Clay Waterworks	Elk River
KE	"	Procious PSD	Elk River
KE	Braxton	Flatwoods-Canoe Run PSD	Elk River
KE	"	Sugar Creek PSD	Elk River
KE	"	W.V. Water-Gassaway Dist.	Elk River
KE	"	W.V. Water-Sutton Dist.	Elk River
KE	Webster	W.V. Water-Webster Springs	Elk River
KE		Holly River State Park	Holly River

Gauley River

KG	Nicholas	Craigsville PSD	Gauley River

KG	"	Summersville Water	Impoundment/Muddl ety Creek
KG	"	Nettie-Leivasy PSD	Jim Branch
KG	Webster	Cowen PSD	Gauley River
KG	Nicholas	Wilderness PSD	Anglins Creek & Meadow River
KG	"	Richwood Water	North Fork Cherry River
New River			
KN	Fayette	Ames Heights Water	Mill Creek
KN	"	Mt. Hope Water	Impounded Mine (Surface)
KN	"	Ansted Municipal Water	Mill Creek
KN	"	Fayette Co. Park	Impoundment
KN	"	New River Gorge Campground	Impoundment
KN	"	Fayetteville Water	Wolfe Creek
KN	Raleigh	Beckley Water	Glade Creek
KN	"	Westmoreland Coal Co.	Farley Branch
Bluestone River			
KNB	Summers	Jumping Branch-Nimitz	Mt. Valley Lake
KNB	"	Bluestone Conf. Center	Bluestone Lake
KNB	"	Pipestem State Park	Impoundment
KNB	Mercer	Town of Athens	Impoundment
KNB	"	Bluewell PSD	Impoundment
KNB	"	Bramwell Water	Impoundment
KNB	"	Green Valley-Glenwood PSD	Bailey Reservoir
KNB	"	Kelly's Tank	Spring
KNB	"	W.V. Water Princeton	Impoundment/Brusc h Creek
KNB	"	Lashmeet PSD	Impoundment
KNB	"	Pinnacle Water Assoc.	Mine
KNB	"	W.V. Water Bluefield	Impoundment
Greenbrier River			
KNG	Summers	W.V. Water Hinton	Greenbrier River & New River
KNG	"	Big Bend PSD	Greenbrier River
KNG	Greenbrier	Alderson Water Dept.	Greenbrier River
KNG	"	Ronceverte Water	Greenbrier River
KNG	"	Lewisburg Water	Greenbrier River
KNG	Pocahontas	Denmar State Hospital Water	Greenbrier River
KNG	"	City of Marlinton Water	Knapp Creek
KNG	"	Cass Scenic Railroad	Leatherbark Creek
KNG	"	Upper Greenbrier PSD	Greenbrier River
KNG	"	The Hermitage	Greenbrier River
Guyandotte River			

OG	Cabell	Salt Rock PSD	Guyandotte River
OG	Lincoln	West Hamlin Water	Guyandotte Rriver
OG	Logan	Logan Water Board	Guyandotte River
OG	"	Man Water Works	Guyandotte River
OG	"	Buffalo Creek PSD	Buffalo Creek/ Mine/Wells
OG	Logan	Chapmanville	Guyandotte River
OG	"	Logan PSD	Whitman Creek/ Guyandotte River
OG	Mingo	Gilbert Water	Guyandotte River
OG	Wyoming	Oceana Water	Laurel Fork
OG	"	Glen Rogers PSD	Impoundment
OG	"	Pineville Water	Pinnacle Creek/ Guyandotte River
OG	Raleigh	Raleigh Co. PSD-Amigo	Tommy Creek
OMG	Cabell	Milton Water Works	Guyandotte River
OMG	"	Culloden PSD	Indian Fork Creek
OMG	Putnam	Hurricane Municipal Water	Impoundment
OMG	"	Lake Washington PSD	Lake Washington

Big Sandy River

BS	Wayne	Kenova Municipal Water	Big Sandy River
BS	"	Fort Gay Water	Tug Fork
BST	Mingo	Kermit Water	Tug Fork
BST	"	Matewan Water	Tug Fork
BST	"	A & H Coal Co., Inc.	Impoundment
BST	"	Williamson Water	Impoundment
BST	McDowell	City of Welch	Impoundment/Wells
BST	"	City of Gary	Impoundment/Mine

APPENDIX C
CATEGORY E-3 - POWER PRODUCTION

This list contains known power production facilities and is not intended to exclude any waters as described in section 6.6.c, herein.

River Basin	County	Station Name	Operating Company
Monongahela River			
M	Monongalia	Fort Martin Power Station	Monongahela Power
M	Marion	Rivesville Station	Monongahela Power
MC	Preston	Albright Station	Monongahela Power
Potomac	Grant	Mt. Storm Power Station	Virginia Electric & Power Company
Ohio River			
O - Zone 1	Wetzel	Hannibal (Hydro)	Ohio Power
O " "	Marshall	Kammer	Ohio Power
O " "	"	Mitchell	Ohio Power
O " "	Pleasants	Pleasants Station	Monongahela Power
O " "	"	Willow Island Station	Monongahela Power
O " "	Mason	Phillip Sporn Plant	Central Operating (AEP)
O " "	"	Racine (Hydro)	Ohio Power
O " "	"	Mountaineer	Appalachian Power Co.
K	Putnam	Winfield (Hydro)	Appalachian Power Co.
K	Kanawha	Marmet (Hydro)	Appalachian Power Co.
K	"	London (Hydro)	Appalachian Power Co.
K	"	Kanawha River	Appalachian Power Co.
K	"	John E. Amos	Appalachian Power Co.

APPENDIX D
CATEGORY C - WATER CONTACT RECREATION

This list contains waters known to be used for water contact recreation and is not intended to exclude any waters as described in section 6.4, herein.

River Basin	Stream Code	Stream	County
Shenandoah	S	Shenandoah River	Jefferson
Potomac	P	Potomac River	Jefferson
	P	" "	Hampshire
	P	" "	Berkeley
	P	" "	Morgan
	P-9	Sleepy Creek & Meadow Branch	Berkeley
	P-9-G-1	North Fork of Indian Run	Morgan
South Branch	PSB	South Branch of Potomac River	Hampshire
	PSB	" "	Hardy
	PSB	" "	Grant
	PSB-21-X	Hawes Run	Pendleton
	PSB-25-C-2	Spring Run	Grant
	PSB-28	North Fork South Branch Potomac River	Grant
North Branch	PNB	North Branch of Potomac River	Mineral
	PNB-4-EE	North Fork Patterson Creek	Grant
	PNB-7-H	Linton Creek	Grant
	PNB-17	Stoney River-Mt. Storm Lake	Grant
	PC	Cacapon River	Hampshire
Monongalia			
Cheat	MC	Cheat Lake/Cheat river	Monongalia/Preston
	MC	Alpine Lake	Preston
	MC-6	Coopers Rock Lake/ Quarry Run	Monongalia
	MC-12	Big Sandy Creek	Preston
	MSC	Shavers Fork	Randolph
	MTN	Middle Fork River	Barbour/ Randolph/ Upshur
	MW	West Fork River	Harrison
	MW-18	Stonecoal Creek/ Stonecoal Lake	Lewis

Ohio	O	OhioRiver	Brooke/ Cabell/ Hancock/ Jackson/ Marshall/ Mason/Ohio/Pleasants/ Tyler/Wayne/Wood/ Wetzel
	O-2-H	Beech Fork of Twelvepole Creek/Beech Fork Lake	Wayne
	O-2-Q	East Fork of Twelvepole Creek/East Lynn Lake	Wayne
	O-3	Fourpole Creek	Cabell
	O-21	Old Town Creek/ McClintic Ponds	Mason
	OMI	Middle Island Creek/ Crystal Lake	Doddridge
	OG	Guyandotte River	Cabell
	OG	Guyandotte River/ R. D. Bailey Lake	Wyoming
	OGM	Mud River	Cabell
Little Kanawha	LK	Little Kanawha River/ Burnsville Lake	Braxton
Kanawha	K	Kanawha River	Fayette/ Kanawha/ Mason/ Putnam
	K-1	Unnamed Tributary Krodel Lake	Mason
	KC	Coal River	Kanawha
	KC-45-Q	Stephens Branch/ Lake Stephens	Raleigh
	KE	Elk River	Kanawha/ Clay/ Braxton/ Webster/ Randolph
	KE	Sutton lake	Braxton
	KN	New River	Fayette/ Raleigh/ Summers
	KN-26-F	Little Beaver Creek	Raleigh
	KNG	Greenbrier River	Greenbrier/Pocahontas/Summers
	KNG-23-E-1	Little Devil Creek/ Moncove Lake	Monroe

KNG-28	Anthony Creek	Greenbrier
KNG-28-P	Meadow Creek/ Lake Sherwood	Greenbrier
KNB	Bluestone River/ Bluestone Lake	Summers
KG	Gauley River	Webster
KG	Gauley River/ Summersville Lake	Nicholas
KGW	Williams River	Webster

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.1 Dissolved Aluminum (ug/l) Not to exceed:	750xCF[5]	87xCF[5]	750xCF[5]	87xCF[5]			
8.2 Ammonia (ug/l): Un-ionized ammonia (UA) shall be determined from values of total ammonia-N, pH and temperature according to the following equation: $UA = \frac{1.2(\text{total ammonia-N})}{1+10^{(pka-pH)}}$ where pka = 0.0902 + 2730/(273.2 + T) and T = temperature (°C) The concentration of un-ionized ammonia (NH3) shall not exceed 50 ug/l.						50	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.2.1 Acute and chronic aquatic life criteria for ammonia shall be determined using the National Criterion for Ammonia in Fresh Water[d] from USEPA's 1999 Update of Ambient Water Quality Criteria for Ammonia (EPA-822-R-99-014, December 1999)	X	X	X	X			
8.3 Antimony (ug/l) Not to exceed:					4300	14	
8.4 Arsenic[b] (ug/l) Not to exceed:					50	50	100
8.4.1 Dissolved Trivalent Arsenic Not to exceed:	360 x CF[5]	190 x CF[5]	360 x CF[5]	190 x CF[5]			
8.5 Barium (mg/l) Not to exceed:						1.0	
8.6 Beryllium (ug/l)	130		130			.0077	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.7 Cadmium (ug/l) Hardness (mg/l $CaCO_3$) Soluble Cd 0 - 35 1.0 36 - 75 2.0 76 - 150 5.0 > 150 10.0						X	
8.7.1 Not to exceed 10 ug/l in the Ohio River (O Zone 1) main stem (see section 7.1.d, herein)						X	
8.7.3 The four-day average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(0.7852[\ln(\text{hardness})]-3.490)} \times CF^5$		X		X			
8.7.4 The one-hour average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(1.128[\ln(\text{hardness})]-3.828)} \times CF^5$	X		X				
8.8 Chloride (mg/l) Not to exceed:	860	230	860	230	250	250	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.9.1 Chromium, dissolved hexavalent (ug/l): Not to exceed:	16 x CF^5	11 x CF^5	16 x CF^5	7.2 x CF^5		50	
8.9.2 Chromium, trivalent (ug/l) The one-hour average concentration of dissolved trivalent chromium shall not exceed the value determined by the following equation: $\exp\{0.8190[\ln(\text{hardness})]+3.7256\} \times (CF^5)$	X		X				
8.9.3 The four-day average concentration of dissolved trivalent chromium shall not exceed the value determined by the following concentration: $\exp\{0.8190[\ln(\text{hardness})]+0.6848\} \times (CF^5)$.		X		X			
8.10 Copper (ug/l) Not to exceed:						1000	
8.10.1 The four-day average concentration of dissolved copper shall not exceed the value determined by the following equation[a]: $Cu = e^{(0.8545[\ln(\text{hardness})]-1.465)} \times CF^5$		X		X			

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.10.2 The one-hour average concentration of dissolved copper shall not exceed the value determined by the following equation[a]: $Cu = e^{(0.9422[\ln(\text{hardness})]-1.464)} \times CF$[5]	X		X				
8.11 Cyanide (ug/l) (As free cyanide $HCN+CN^-$) Not to exceed:	22	5.0	22	5.0	5.0	5.0	
8.12 Dissolved Oxygen[c]: not less than 5 mg/l at any time.	X				X	X	X
8.12.1 Kanawha River main stem, Zone 1 - Not less than 4.0 mg/l at any time.	X						
8.12.2 Ohio River main stem - the average concentration shall not be less than 5.0 mg/l per calendar day and shall not be less than 4.0 mg/l at any time or place outside any established mixing zone - provided that a minimum of 5.0 mg/l at any time is maintained during the April 15-June 15 spawning season.	X						

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.12.3 Not less than 7.0 mg/l in spawning areas and in no case less than 6.0 mg/l at any time.			X				
8.13 Fecal Coliform: Maximum allowable level of fecal coliform content for Primary Contact Recreation (either MPN or MF) shall not exceed 200/100 ml as a monthly geometric mean based on not less than 5 samples per month; nor to exceed 400/100 ml in more than ten percent of all samples taken during the month.					X	X	
8.13.1 Ohio River main stem (zone 1) - During the non-recreational season (November through April only) the maximum allowable level of fecal coliform for the Ohio River (either MPN or MF) shall not exceed 2000/100 ml as a monthly geometric mean based on not less than 5 samples per month.					X		
8.14 Fluoride (mg/l) Not to exceed:						1.4	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.14.1 Not to exceed 2.0 for category D uses.							X
8.15 Iron[c] (mg/l) Not to exceed:		1.5		0.5		1.5	
8.16 Lead (ug/l) Not to exceed:						50	
8.16.1 The four-day average concentration of dissolved lead shall not exceed the value determined by the following equation[a]: $Pb = e^{(1.273[\ln(\text{hardness})]-4.705)} \times CF^5$		X		X			
8.16.2 The one-hour average concentration of dissolved lead shall not exceed the value determined by the following equation[a]: $Pb = e^{(1.273[\ln(\text{hardness})]-1.46)} \times CF^5$	X		X				
8.17 Manganese (mg/l) (see §6.2.d) Not to exceed:						1.0	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.18 Mercury The total organism body burden of any aquatic species shall not exceed 0.5 ug/g as methylmercury.					0.5	0.5	
8.18.1 Total mercury in any unfiltered water sample shall not exceed (ug/l):	2.4		2.4		0.15	0.14	
8.18.2 Methylmercury (water column) Not to exceed (ug/l):		.012		.012			
8.19 Nickel (ug/l) Not to exceed:					4600	510	
8.19.1 The four-day average concentration of dissolved nickel shall not exceed the value determined by the following equation[a]: $Ni = e^{(0.846[\ln(\text{hardness})]+1.1645)} \times CF^5$		X		X			
8.19.2 The one-hour average concentration of dissolved nickel shall not exceed the value determined by the following equation[a]: $Ni = e^{(0.846[\ln(\text{hardness})]+3.361)} \times CF^5$	X		X				
8.20 Nitrate (as Nitrate-N) (mg/l)						10	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.21 Nitrite (as Nitrite-N) (mg/l) Not to exceed:	1.0		.060				
8.22 Organics							
Chlordane[b] (ng/l)	2400	4.3	2400	4.3	0.46	0.46	0.46
DDT[b] (ng/l)	1100	1.0	1100	1.0	0.024	0.024	0.024
Aldrin[b] (ng/l)	3.0		3.0		0.071	0.071	0.071
Dieldrin[b] (ng/l)	2500	1.9	2500	1.9	0.071	0.071	0.071
Endrin (ng/l)	180	2.3	180	2.3	2.3	2.3	2.3
Toxaphene[b] (ng/l)	730	0.2	730	0.2	0.73	0.73	0.73
PCB[b] (ng/l)		14.0		14.0	0.045	0.044	0.045
Methoxychlor (ug/l)		0.03		0.03	0.03	0.03	0.03
Dioxin (2,3,7,8- TCDD)[b] (pg/l)					0.014	0.013	0.014
Acrylonitrile[b] (ug/l)					0.66	0.059	
Benzene[b] (ug/l)					71	0.66	
1,2-dichlorobenzene (mg/l)					17	2.7	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
1,3-dichlorobenzene (mg/l)					2.6	0.4	
1,4-dichlorobenzene (mg/l)					2.6	0.4	
2,4-dinitrotoluene[b] (ug/l)					9.1	0.11	
Hexachlorobenzene[b] (ng/l)					0.77	0.72	
Carbon tetrachloride[b] (ug/l)					4.4	0.25	
Chloroform[b] (ug/l)					470	5.7	
Halomethanes (ug/l)					15.7	0.19	
1,2-dichloroethane[b] (ug/l)					99	0.035	
1,1,1- trichloroethane[b] (mg/l)						12	
1,1,2,2-tetrachloroethane (ug/l)					11	0.17	
1,1-dichloroethylene[b] (ug/l)					3.2	0.03	
Trichloroethylene[b] (ug/l)					81	2.7	
Tetrachloroethylene[b] (ug/l)					8.85	0.8	
Toluene[b] (mg/l)					200	6.8	
Polynuclear Aromatic Hydrocarbons (PAH)[b] (ug/l)					0.031	.0028	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
Phthalate esters (ug/l)		3.0		3.0			
Vinyl chloride[b] (chloroethene)(ug/l)					525	2.0	
alpa-BHC (alpha- Hexachloro-cyclohexane)[b] (ug/l)					0.013	.0039	
beta-BHC(beta- Hexachloro-cyclohexane)[b] (ug/l)					0.046	0.014	
gamma-BHC (gamma- Hexachloro-cyclohexane)[b] (ug/l)	2.0	0.08	2.0	0.08	0.063	0.019	
Chlorobenzene (mg/l)					21	0.68	
Ethylbenzene (mg/l)					29	3.1	
Heptachlor[b] (ng/l)	520	3.8	520	3.8	0.21	0.21	
2-methyl-4,6-Dinitrophenol (ug/l)					765	13.4	
Fluoranthene (ug/l)					370	300	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.22.1 The organic chemicals listed in §8.22 shall not exceed the specified water quality criteria. When the specified criteria are less than the practical laboratory quantification level, instream values will be calculated from discharge concentrations and flow rates, where applicable.							
8.23 pH[e] No values below 6.0 nor above 9.0. Higher values due to photosynthetic activity may be tolerated.	X	X	X	X	X	X	X
8.24 Phenolic Materials							
8.24.1 Phenol (ug/l) Not to exceed:					4,600,000	21,000	
8.24.2 2-Chlorophenol (ug/l) Not to exceed:					400	120	
8.24.3 2,4-Dichlorophenol (ug/l) Not to exceed:					790	93	
8.24.4 2,4-Dimethylphenol (ug/l) Not to exceed:					2300	540	
8.24.5 2,4-Dinitrophenol (ug/l) Not to exceed:					14,000	70	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.24.6 Pentachlorophenol[b] (ug/l)					8.2	0.28	
8.24.6.a The one-hour average concentration of pentachlorophenol shall not exceed the value determined by the following equation: exp(1.005(pH)-4.869)	X		X				
8.24.6.b The 4-day average concentration of pentachlorophenol shall not exceed the value determined by the following equation: exp(1.005(pH)-5.134).		X		X			
8.24.7 2,4,6-Trichlorophenol[b] (ug/l) Not to exceed:					6.5	2.1	
8.25 Radioactivity: Gross Beta activity not to exceed 1000 picocuries per liter (pCi/l), nor shall activity from dissolved strontium-90 exceed 10 pCi/l, nor shall activity from dissolved alpha emitters exceed 3 pCi/l.	X		X		X	X	X

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.25.1 Gross total alpha particle activity (including radium-226 but excluding radon and uranium shall not exceed 15 pCi/l and combined radium-226 and radium-228 shall not exceed 5pCi/l; provided that the specific determination of radium-226 and radium-228 are not required if dissolved particle activity does not exceed 5pCi/l; the concentration of tritium shall not exceed 20,000 pCi/l; the concentration of total strontium-90 shall not exceed 8 pCi/l in the Ohio River main stem.	X		X		X	X	X
8.26 Selenium (ug/l) Not to exceed:	20	5	20	5		10	
8.27 Silver (ug/l)							
Hardness / Silver							
0-50 / 1				X		X	
51-100 / 4							
101-200 / 12							
>201 / 24							

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.27.1 0-50 1 51-100 4 101-200 12 201-400 24 401-500 30 501-600 43		X					
8.27.2 The one-hour average concentration of dissolved silver shall not exceed the value determined by the following equation: $Ag=e^{(1.72[\ln(hardness)]-6.52)} \times CF^{5}$	X		X				

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.28 Temperature Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 87°F at any time during months of May through November and not to exceed 73°F at any time during the months of December through April. During any month of the year, heat should not be added to a stream in excess of the amount that will raise the temperature of the water more than 5°F above natural temperature. In lakes and reservoirs, the temperature of the epilimnion should not be raised more than 3°F by the addition of heat of artificial origin. The normal daily and seasonable temperature fluctuations that existed before the addition of heat due to other natural causes should be maintained.	X						
8.28.1 For the Kanawha River Main Stem (K-1): Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 90°F in any case.	X						

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.28.2 For the Bluestone R (KNB), Bluestone Lake (KN-60) East River (KNE), New River (KN), Gauley R. (KG) and Greenbrier River (KNG): Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 81°F at any time during the months of May through November and not to exceed 73°F at any time during December through April.			X				
8.28.3 No heated effluents will be discharged in the vicinity of spawning areas. The maximum temperatures for cold waters are expressed in the following table: Daily Mean °F / Hourly Max °F Oct-Apr 50 / 55 Sep-May 58 / 62 Jun-Aug 66 / 70			X				

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.28.4 For Ohio River Main Stem (01) (see section 7.1.d, herein):							
Dates / Period Ave. / Inst. Max.							
Jan 1-31 45°F 50°F							
February 45 50							
March 1-15 51 56							
March 16-31 54 59							
April 1-15 58 64							
April 16-30 64 69							
May 1-15 68 73							
May 16-31 75 80							
June 1-15 80 85							
June 16-30 83 87							
July 1-31 84 89							
August 1-31 84 89							
Sept 1-15 84 87							
Sept 16-30 82 86							
Oct 1-15 77 82							
Oct 16-31 72 77							
Nov 1-30 67 72							
Dec 1-31 52 57	X						
8.29 Thallium (ug/l)					6.3	1.7	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.30 Threshold odor[c] Not to exceed a threshold odor number of 8 at 104°F as a daily average.		X		X	X	X	
8.31 Total Residual Chlorine (ug/l - measured by amperometric or equivalent method) Not to exceed:	19	11					
8.31.1 No chlorinated discharge allowed			X				
8.32 Turbidity No point or non-point source to West Virginia's waters shall contribute a net load of suspended matter such that the turbidity exceeds 10 NTU's over background turbidity when the background is 50 NTU or less, or have more than a 10% increase in turbidity (plus 10 NTU minimum) when the background turbidity is more than 50 NTUs.							

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
This limitation shall apply to all earth disturbance activities and shall be determined by measuring stream quality directly above and below the area where drainage from such activity enters the affected stream. Any earth disturbing activity continuously or intermittently carried on by the same or associated persons on the same stream or tributary segment shall be allowed a single net loading increase.		X		X	X	X	
8.32.1 This rule shall not apply to those activities at which Best Management Practices in accordance with the State's adopted 208 Water Quality Management Plan are being utilized, maintained and completed on a site-specific basis as determined by the appropriate 208 cooperative or an approved Federal or State Surface Mining Permit is in effect. This exemption shall not apply to Trout Waters.		X			X	X	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C[3]	A[4]	
	ACUTE[1]	CHRON[2]	ACUTE[1]	CHRON[2]			
8.33 Zinc (ug/l) The four-day average concentration of dissolved zinc shall not exceed the value determined by the following equation[a]: $Zn = e^{(0.8473\{\ln(\text{hardness})\}+0.7614)} \times CF^5$		X		X			
8.33.1 The one-hour average concentration of dissolved zinc shall not exceed the value determined by the following equation[a]: $Zn = e^{(0.8473\{\ln(\text{hardness})\}+0.8604)} \times CF^5$	X		X				

1 One hour average concentration not to be exceeded more than once every three years on the average, unless otherwise noted.

2 Four-day average concentration not to be exceeded more than once every three years on the average, unless otherwise noted.

3 These criteria have been calculated to protect human health from toxic effects through fish consumption, unless otherwise noted.

4 These criteria have been calculated to protect human health from toxic effects through drinking water and fish consumption, unless otherwise noted.

5 The appropriate Conversion Factor (CF) is a value used as a multiplier to derive the dissolved aquatic life criterion is found in Appendix E, Table 2.

a Hardness as calcium carbonate (mg/l). The minimum hardness allowed for use is this equation shall not be less than 25 mg/l, even if the actual ambient hardness is less than 25 mg/l. The maximum hardness value for use in this equation shall not exceed 400 mg.l even if the actual hardness is greater than 400 mg/l.

b Known or suspected carcinogen. Human health standards are for a risk level of 10^{-6}.

c May not be applicable to wetlands (B4) - site-specific criteria are desirable.

d The early life stage equation in the National Criterion shall be used to establish chronic criteria throughout the state unless the applicant demonstrates that no early life stages of fish occur in the affected water(s).

APPENDIX E
TABLE 2

Conversion Factors

Metal	Acute	Chronic
Aluminum	1.000	1.000
Arsenic (III)	1.000	1.000
Cadmium	1.136672-[(ln hardness)(0.041838)]	1.101672-[(ln hardness)(0.041838)]
Chromium (III)	0.316	0.860
Chromium(VI)	0.982	0.962
Copper	0.960	0.960
Lead	1.46203-[(ln hardness)(0.145712)]	1.46203-[(ln hardness)(0.145712)]
Nickel	0.998	0.997
Silver	0.85	N/A
Zinc	0.978	0.986

RESPONSES TO COMMENTS and EXPLANATION OF PROPOSED AMENDMENTS
46 CSR 1
Requirements Governing Water Quality Standards
January 2, 2003

This document describes the amendment proposed in the Water Quality Standards rule. It includes a description of the existing rule; the amendment proposed by the Board which went to public notice on November 15, 2002; a summary of the comments received on the proposed amendment; the Board's response to the comments, amendments to the proposal made as a result of the comments received and the reason for the amendments.

Section 7.2.a.2.

This section establishes a one-half mile zone above public water supply intakes in which no exceedences of the numeric criteria for the Public Water Supply designated use ("Category A") are allowed. This provision is known as the "half-mile rule." Weirton Steel Corporation has a discharge (Outlet 002) that occurs within ½ mile of an intake that is used for drinking water purposes at the Weirton facility. An exemption from the half-mile rule was granted to Weirton Steel in 1999. This exemption is included as the last sentence in section 7.2.a.2, which provides that until June 30, 2003, the one-half mile zone requirements do not apply to the segment of the Ohio River between mile points 61.0 and 63.5.

Proposed Revision

The change proposed in the Notice of a Public Hearing on a Proposed Rule, filed on November 15, 2002, was to revise Weirton Steel's exemption to the half- mile rule by deleting the words "Until June 30, 2003,". With that revision, the last sentence would read:

> The one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

The result of this revision would have been that Weirton Steel's current exemption from the half-mile rule would become permanent.

Comments Received and Board Responses

1. **Comment**. The West Virginia Department of Environmental Protection (WVDEP) provided comments on the proposal stating that the agency could not support a permanent variance to the half-mile rule, as requested by Weirton Steel. The agency cited concerns identified by the West Virginia Bureau for Public Health regarding the proximity of Outlet 002 and the drinking water intake. The WVDEP also indicated that the discharge

of free cyanide and ammonia/nitrogen have been in compliance with the more stringent end-of-pipe limits required by the half-mile rule, which would obviate the need for an exemption from the provision. They further suggest that concentrations of iron might be lowered by additional technology-based efforts, which might result in compliance with the half-mile rule. The agency suggests that the company provide more support for its position that the discharge plume from Outlet 001 (we assume the agency means outlet 002 here – which is the outlet above the drinking water intake) is buoyant while the intake draws water from the bottom of the river. Further, the agency questioned why negotiations with the City of Weirton regarding hooking into the City's water supply and abandoning the current drinking water intake seem to have stalled, in light of the fact that this the current exemption seems to have been premised on that plan.

Based on the issues raised, the agency suggests that a one or two year extension to the variance with stipulated milestones to measure progress might be an appropriate alternative to the facility's request for a permanent variance.

Response. The Board appreciates the assistance of WVDEP in evaluating this request. The Board believes that the agency has raised several important issues that warrant further review and investigation, and agrees that a 1-2 year extension of the variance is appropriate.

2. **Comment.** The Region 3 Office of the US Environmental Protection Agency provided comments addressing the supporting documentation that the agency would expect to accompany an extension of the current exemption. In their comments, the agency referred to a letter sent to the Board dated September 30, 2002, in which the agency withheld approval of the currently effective exemption and requested that the Board clarify how the variance will ensure the protection of the human health designated use. In its comments, the agency also advised that the Board consider the request for a permanent exemption as a site-specific water quality standards revision, rather than a variance, which is a short-term exemption from standards. In establishing a site-specific standard, the state would be expected to follow the procedures set forth in 40 CFR, Part 131. The agency stated: "In particular, West Virginia should provide analysis and documentation that the site-specific exemption from the half-mile rule maintains protection of the designated use, either by meeting protective criteria at the drinking water intake, (i.e., a site-specific mixing zone) or by establishing protective alternate criteria. By following these procedures, West Virginia would ensure the protection of the drinking water use." The agency also noted that the Federal Clean Water Act requires that revisions to the Water Quality Standards rule are subject to review and approval by USEPA and do not become effective for implementation purposes until approved by that agency.

Response. The Board acknowledges the agency's request for supporting documentation for both the current exemption, and for any permanent exemption granted from the half-mile rule. The Board intends to address the agency's comments by continuing its review of the request for a permanent extension through the triennial review of the Water Quality Standards rule. Results of the review will be forwarded to Region 3 USEPA along with

other documentation of the triennial review of the standards. This information will be forwarded to Region 3 in compliance with 40 CFR 131.20(c).

3. **Comment**. The West Virginia Rivers Coalition objected to the request for a permanent exemption, citing the company's failure to complete the acquisition of drinking water from the City of Weirton, which was the primary basis for the original exemption from the half-mile rule. The commenter provided information from US EPA's Permit Compliance System Database which identifies numerous permit violations at discharges from the facility for human health criteria, including lead, fluoride and hexavalent chromium. The commenter objects to the permanent exemption indicating that natural resources are inherently more permanent than economic resources, and that a permanent exemption does not serve to protect for future uses and could deter potential growth in a changing economic environment.

Response. The Board acknowledges the commenters concerns. While we note that the data from EPAs database does not identify the outlets in non-compliance, we agree that a thorough review of the facility's discharges at the outlet within the half-mile zone (Outlet 002) is warranted before making a determination regarding a permanent variance. We agree with the concerns raised regarding efforts to acquire water from the City of Weirton – see comment # 4, below.

4. **Comment.** Several commenters expressed concern regarding Weirton Steel's failure to complete an agreement with the City of Weirton to purchase potable water from the Weirton Area Water Board (WAWB). This is of concern because the potential for hooking up to the City's water supply was, in large part, the basis for the facility's original request, and Board's rationale for the current exemption. The Weirton Area Water Board provided comments which indicate that they have been pursuing state and federal grants which could be used toward making capital improvements and providing discounts to Weirton Steel's potable water price beyond that which the Board has already offered to the facility. The WAWB indicated that Weirton has not responded to their requests to continue serious negotiations for the purchase of potable water until recently.

Weirton Steel Corporation responded to WAWB's comments in a letter provided to the Board at its public hearing held on December 16, 2002. In that letter Weirton Steel outlines its communications with the WAWB and its efforts to negotiate a water purchase agreement with the City. Weirton Steel maintains that denying a permanent variance provides no environmental protection nor human health benefits, but merely serves to increase the City's (WAWB) "ability to leverage WSC to increase its estimate of its internal water production costs by factoring in the cost of relocating its intake and or any other of the listed remedies."

Weirton Steel emphasizes in this letter that any decision regarding the rule should be based on environmental impacts - they further maintain that the need for a new intake only exists at this time because of the existence of the half-mile rule in an environmental regulation and not because of any actual environmental need.

Response. At the time that the WVDEP issued a permit requiring compliance with Weirton's Outlet 002 with the half-mile rule, Weirton represented that they were pursuing, and would continue to pursue, an arrangement to purchase drinking water from the City of Weirton. Upon completion of such arrangement, the facility intended to close its drinking water filtration plant, which would resolve the concern regarding compliance with the half-mile rule. Based on the efforts planned by the facility, the Board agreed to Weirton's request and proposed a variance from the half-mile rule effective until June 30, 2003.

The record established in the comments received on this matter indicates that while some efforts have been made to negotiate a hookup with the City of Weirton, no agreement has been reached between the parties. Although Weirton indicates that it intends to continue to pursue a hookup with the City, the facility has asked the Board to extend the exemption from the half-mile rule permanently.

Because the efforts to negotiate an agreement regarding Weirton Steel's purchase of water from the City of Weirton are continuing, the Board believes that a short-term extension of the exemption from the half-mile rule is appropriate at this time. This will provide additional time for the parties to pursue these negotiations, and will also provide the Board time to evaluate the potential impacts of the discharge on Weirton Steel's drinking water intake and to ensure continuation of the exemption will not result in human health impacts.

5. **Comment.** After receiving Weirton Steel's application for a permanent variance from the half-mile rule, the Board requested comments regarding the proposal from the West Virginia Bureau for Public Health. The agency provided those comments in a letter dated September 26, 2002. Although provided before the formal comment period began, the Board took those comments into consideration in its review of the proposal. The comments included concerns regarding limited finished water compliance testing (every 3 years) and the threat of accidental undetected industrial spills from the upstream outlet reaching the public water supply. The agency also raised the failure of Weirton Steel to find an alternative source of drinking water, which the company had indicated it would pursue when the current variance was granted by the Board. Finally the agency expressed concerns about the facility's compliance with new federal drinking water rules, which will establish new restrictions on total trihalomethanes ("TTHM") and for 5 haloacetic acids ("HAA5").

Response.

The Board acknowledges the concerns raised by the Bureau and intends to continue to evaluate the issues raised by the agency. We believe that granting the variance on a permanent basis, rather than as a temporary provision to allow an alternate solution to the compliance with the half-mile rule, warrants additional review to ensure that any potential for human health impacts is evaluated and addressed appropriately.

6. Weirton Steel provided comments at the public hearing, primarily responding to the comments submitted by the Weirton Area Water Board. See #4, above.

Board Action – Revision of the proposed amendment

The purpose of the half-mile rule is to establish a zone of extra protection above intakes used for public water supply purposes. Effluent limits for discharges in such zones are calculated to ensure that the numeric criteria established to protect the public water supply designated use are met at the end of the discharge pipe, to ensure that the intake is protected. The rule also gives the Chief of the Office of Water Resources (now designated as the Director of the Division of Water Resources) discretion to "establish for any discharge, effluent limitations for the protection of human health that require additional removal of pollutants than would otherwise be provided by this rule."

Upon review of all comments received, the Board has determined that additional review of the request for a permanent variance from the half-mile rule is warranted before granting Weirton Steel's request. We believe that it is important to continue this evaluation in order to ensure that the intent of the half-mile rule is not compromised by the continued exemption of Weirton Steel's discharge at Outlet 002. We would like to continue to gather additional information, including discharge compliance from outlet 002, potential effects of the discharges on human health and the potential for compliance with limits established according to the half-mile rule. We will also continue to monitor progress made between Weirton Steel and the City of Weirton regarding the possibility of Weirton Steel's acquisition of drinking water from the City. We intend to incorporate the review of this matter into the on-going triennial review of the Water Quality Standards rule, which is scheduled for completion in August 2003. At that time a proposal could be made to the Legislative Rule-Making Review Committee for consideration in the 2004 legislative session. In order to meet this schedule, the Board is proposing now to continue Weirton's current exemption until September 1, 2004.

Based on this decision, the Board proposes to revise the last sentence in section 7.2.a.2 to read as follows:

> Until <u>September 1, 2004</u>, the one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

ORIGINAL

ENVIRONMENTAL QUALITY BOARD

IN RE: PROPOSED AMENDMENT TO RULE 7.2.a.2. GRANTING PERMANENT EXEMPTION TO ONE-HALF MILE ZONE

DECEMBER 16, 2002
PUBLIC HEARING

CHARLESTON, WEST VIRGINIA

Transcript of the proceedings had in the above-styled matter before the Environmental Quality Board on the 16th day of December, 2002, commencing at 7:04 p.m., at 1615 Washington Street, East, Charleston, West Virginia, and reported by Karen R. Meyers, Certified Court Reporter.

BEFORE:
EDWARD SNYDER, Chairman
EDWARD C. ARMBRECHT, JR.
CAMERON HACKNEY
CHARLES JENKINS
DAVID SCOTT SIMONTON

ALSO PRESENT:
REBECCA CHARLES, ESQUIRE, Board Attorney
ELIZABETH M. CHATFIELD, ESQUIRE,
Technical Advisor
MELISSA CARTE, CLERK

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PRESENTERS:

ATTACHMENTS:

December 16, 2002 Letter
West Virginia Rivers Coalition

December 5, 2002 Letter
Weirton Area Water Board

Faxed Letter - December 16, 2002
United States Environmental Protection Agency

December 16, 2002 Letter
West Virginia Department of Environmental Protection

December 16, 2002 Letter
Weirton Steel Corporation

CHAIRMAN SNYDER: Good evening. This evening we have a public hearing regarding 46 CSR 1, Water Quality Standards Rule, Section 7.2.a.2, to address Weirton Steel's request to make their current exemption to the "half-mile rule" permit.

We'll get some of the paperwork taken care of and passed around.

MS. CHATFIELD: We have received a few comments, so far, that we're handing out, some from Region III EPA; comments from West Virginia Department of Environmental Protection, Division of Water Resources; West Virginia Rivers Coalition and the Weirton Area Water Board.

And the Weirton Area Water Board has made a specific request that -- they are unable to attend tonight and they've made a request that their comments be read into the record.

CHAIRMAN SNYDER: Okay. The others we do not need to read into the record. We will consider them and look at them; let -- how do we want to do this, do we want to read those into the record and then open everything for public forum; do you want to do that?

MS. CHATFIELD: That's fine, if that's what you choose.

CHAIRMAN SNYDER: Shall we do that?

MS. CHATFIELD: Anybody have a --

CHAIRMAN SNYDER: Preference? So let's -- Libby, if

you would be so kind as to read the comments into the record for us, then we'll proceed with the open part of the hearing.

MS. CHATFIELD: Yes, a letter from the Weirton Area Water Board, dated December 5th, 2002, to the Board.

(Reading) Dear Chairman Snyder: On behalf of the Weirton Area Water Board, I would like to thank Chairman Snyder for making this opportunity available for us to enter our comments into the public record with regard to Weirton Steel Corporation's request for a permanent variance to the "half-mile rule."

The WAWB would like to reach an agreement with Weirton Steel and see -- excuse me, let me get these -- they refer to WAWB as Weirton Area Water Board and WSC is Weirton Steel Corporation. I'll start the second paragraph again.

The WAWB would like to reach an agreement with WSC and sell WSC quality potable water at a reasonable price. Several years ago we invested approximately $20,000 and numerous staff manhours into an engineering facility's plan to determine that we could provide WSC approximately four million gallons of potable water per day for approximately less than half the cost charged to our other residential and industrial customers. Since capital improvements to the Weirton Water Treatment Plant would need to be made to

accommodate WSC's water demands, the City also included in this proposal a four-year lead time for delivery of potable water to the WSC connection points. The City justified this significant discount because the purchase water agreement did not include line distribution maintenance throughout the WSC facilities; our responsibility would end at the metered connection points established by WSC and City engineers. The negotiations with WSC at that time also included an opportunity for WSC to provide capital improvement funding directly to the City which would result in the City being able to provide an even greater discount to WSC for potable water. The City was under the understanding that negotiations were progressing in a mutually favorable manner but since WSC was approaching a deadline to comply with the "half-mile rule," more time would be needed to complete the negotiations, perform all the capital improvements and provide WSC with potable water. Upon WSC's request, the City agreed to document its support for the extension to the Environmental Quality Board and West Virginia State Legislature supporting WSC's variance to the "half-mile rule." The variance was granted for a three-year period and the City continued to make attempts to negotiate a purchase water agreement with WSC.

Since the WSc variance was approved, the City

established the WAWB which has continued to approach the prospect of selling water to WSC in a favorable manner. Unfortunately WSC has not responded to our requests to continue serious negotiations for the purchase of potable water until recently. Although WSC discontinued these negotiations for reasons known to them, the WAWB has continued to work toward obtaining federal or state grants which could be used toward providing additional discounts to WSC's potable water price. Recently the WAWB has met with Congressman Alan Mollohan in an effort to obtain federal funds to capitalize on plant expansion and provide an even greater water discount to WSC; we are still awaiting the outcome of these meetings. Within the past several years, the WAWB has also invested in the development of a hydraulic model for the entire city water distribution system which has been to project water flow and pressure potentials at proposed connection sites to WSC. The hydraulic model developed by Thrasher Engineering of Charleston has been used to improve the facilities plan to further insure WSC potable water demands can be met at all proposed connection sites. The City and the WAWB has invested significant money and time in developing a purchase water agreement that will provide WSC with quality water that will meet current and future state and federal water quality regulations, meet WSC

potable water demands, and insure adequate water production capacities for future development.

WSC's interest in negotiating a purchase water agreement appears to be dependent upon the implementation deadline of the "half-mile rule." It is our opinion that if a permanent variance is granted to WSC's outfall 002, WSC will discontinue negotiations with the WAWB and a purchase water agreement will never be negotiated. Future water quality regulations are requiring nearly all public water systems to capitalize on equipment necessary to meet more stringent water quality standards. When these costs are distributed across a larger number of gallons sold, the increased cost per gallon of water produced are lower. It is therefore our opinion that negotiating a purchase water agreement with WSC would be in favor of WSC and the entire Weirton Community. Due to the investment of time and money the WAWB has made in continuing to develop the best possible price for a purchase water agreement, and due to the fact that our requests to Congressman Mollohan are still outstanding, we are requesting that no more than a one-year extension be granted at this time to WSC for their variance to the "half-mile rule." It is also our opinion that a one-year limitation to this variance will keep WSC interested in continuing negotiations for a purchase water agreement that

will benefit all residents, businesses and future development for the City of Weirton. Sincerely, Jim Shockley, Chairman, Weirton Area Water Board.

CHAIRMAN SNYDER: Thank you for reading that, Libby.

At this time -- Ted, you have a sign-up sheet next to you. If you would be willing to see who signed up and who would like to speak.

DOCTOR ARMBRECHT: We have two names on here, Mr. Chairman, Mark Vignovic and Ann Bradley.

CHAIRMAN SNYDER: And whoever would like to proceed first.

MR. VIGNOVIC: Good evening Mr. Chairman and Board members. My name is Mark Vignovic, Director of Environmental Control for Weirton Steel Corporation.

For the past few years Weirton has appeared before this Board several times regarding our special concerns with the "half-mile rule."

More recently WSC, going with the previous letter, appeared before the Board on two occasions in 2002, in September -- September 5th and October 24th, and the outcome of those meetings are tonight's hearing.

Weirton is here again tonight hopeful that on this occasion the EQB will recognize that the proposed change to the "half-mile rule" affects only Weirton Steel Corporation,

does not cause any adverse environmental impact on human health and will consequently make our limited exception to the rule permanent.

It has been previously suggested to the Board by other parties that there are several actions that Weirton Steel could pursue to avoid the impacts of the rule and eliminate the need for this exemption. Such actions include operating waste water treatment systems at the affected outfall, installing a separate intake structure for our drinking water or shutting down our drinking water plant and purchasing drinking water from others. Unfortunately, jumping to such drastic conclusions is simply unnecessary.

Based on previous studies conducted by Weirton Steel Corporation and provided to the DEP and EQB, there is no adverse impact to human health that needs corrected by these actions. Therefore, consideration of these suggested options is irrelevant and not appropriate.

Implementation of any of these unnecessary actions will provide no additional protection to human health, only serves to put Weirton Steel at an economic disadvantage and adds uncertainties to our continued viability.

That's all the comments I have for tonight, but in lieu of the letter that was read and some of the other comments that were submitted, I have some other ones that I would

like to make there.

As you recall, we last met in October to discuss this matter further and one of the things that was asked for was for Weirton Steel to meet with the health department and the DEP to address their concerns. The Board was kind enough to provide us almost three months to work out those issues so that we have an agreement to present to the Board. Unfortunately, we don't have anything tonight.

I've contacted the health department on numerous occasions since the last meeting, left numerous voice mails and have not had one returned call.

The DEP. This month we contacted the DEP at least three times here in December to see where their concerns were and did not get their concerns until this morning when I received a fax.

These agencies have had technical access to information provided by us to the Board for over three months and we still haven't had a chance to discuss the issues face to face or at least by way of a conference call.

To address the letter raised by the city of Weirton, which was read in earlier, the written response that I gave you tonight addresses that in particular there. We've tried to make -- and you'll see attached to that letter is a letter that we had sent to the Weirton mayor on November

1st.

First, you know, the city's main concern here is not environmental impacts, it's that they're stating that Weirton will only continue to negotiate the purchase of water from the city because of the "half-mile rule" and that's simply not the case there. We have been discussing buying water from the City of Weirton for several years if the economics are there. Unfortunately, they aren't there.

I think if you go back in the files here, you'll find that the City of Weirton has proposed selling water to Weirton Steel back in the '80s and the '70s, as well. I think that's always been there. It's been to everyone's benefit to upgrade the plant, expand it so that everyone can benefit from a better infrastructure. But we'll continue to meet with the Weirton Water Board.

Since August -- or, excuse me, April 18th, when we informed the city we were going to be pursuing a permanent variance, representatives from Weirton Steel have met with the board six times. And right now there are significant gaps in the financial requirements for this project to go forward, the same that were there for the last two or three years.

And you can see the work that we've done here. The city has said they've spent $20,000 on engineering studies.

We've spent $282,000 on engineering studies since 2000 on trying to make this thing happen. Unfortunately, as I said, we have a significant gap in the financial requirements.

Right now I think the city and Weirton Steel are in agreement on the size of a modified plant. The cost for this plant is about 16 million dollars. And right now there's a shortage of between 9 and 10 million dollars, if the existing customers, including Weirton Steel, are to get water from this plant at no increase to their current costs, whether they be customers, other businesses or Weirton Steel.

But right now, unless this Board or the state has 9 or 10 million dollars to make available, this project is really not going to move forward. And that's why you'll see in our letter we had supported the city and sent letters to Congressman Mollohan and Senator Byrd and Rockefeller to see if there was any money available on the federal side, since we don't see much available on the state side.

As far as the letter you all received from the DEP today, again, I'd like to mention that we've tried to talk to the DEP since the last meeting. October 24th we even met with the DEP prior to the meeting on October 24th. That was the last time we talked to DEP about this. We had several requests here in December and, as late as Friday, the last

time that I was in contact with them, they still had not had a finalized position that they could share with us. We'd got that today.

And they raised six points in the letter. Until today there was an issue as far as the health department goes. The only issue that we were aware of was with trihalomethanes, and we tried to discuss that with the health department to address it to their satisfaction and they have not got back or returned any calls to me on that matter since the first meeting in September.

The other issue that they addressed at that time was the proximity of our intake and to our discharge in the event there was a spill or discharge, and I thought we talked about that in our previous comments, or written comments were submitted to the Board last month.

No issue has ever been raised regarding carcinogens by either the DEP or the health department until that letter. And, frankly, we're at a loss of what carcinogens they're talking about.

It seems to -- more than the fact that there's human health water quality standards that apply out in the stream, that the Board has come up with, that are supposed to protect things like cancer and cancer risks.

Our sampling shows that our water plant will meet the

criteria established under the health departments and the issue of carcinogens and 70-year risks is just simply a red herring.

And points two and three that's raised by the DEP, that we only need the variance because of iron in the discharge, well, we agree with that fact. But that means a change to this rule is necessary.

The data that's relied on in the DEP's comments are incorrect, we believe, when they look at the background and the discharge for iron. It's different from what we've seen in their fax sheet, which we made mention in our previous comments. It's not necessary to reduce iron to protect the water intake. Sampling shows that we are meeting the criteria at the drinking water plant and our modeling shows that we will meet it at the receiving stream. There's no need to treat iron just to reduce iron.

Point four is the -- DEP has asked what studies we have done to show there's no impact on the intake. Well, we've submitted studies to them as requirements of our previous permit, that we shared with you all at the last meeting. We have reissued these things to the state, as far as our permit being up for renewal, and it's obvious to us that they either haven't read the studies or they don't understand what's been communicated to them.

They have, up to this point, never communicated to us any criticism or response to the studies that have been provided. And all of these were provided or done at Weirton Steel at significant cost over the last several years. I think it's in excess of $750,000.

Point five, that the DEP has raised about us being more aggressive in our seeking an agreement with the City of Weirton. I think our letter to you will address the fact and what I just mentioned earlier about the -- where we are with the city of Weirton right now. There is a significant funding difference here that is not going to be resolved by the "half-mile rule" being here or not being here.

And the last, six, that -- point six that the DEP raised talks about alternatives and the one that they seem to favor is the new intake. And for a struggling company that's lost over 550 million dollars last year, has lost nearly 100 million dollars the first three quarters of this year, any expense for something that's deemed not necessary is unnecessary, especially for a new intake that we have estimated would cost about 2.3 million dollars.

In conclusion, we would just like that the EQB consider all the information we've provided in our two previous meetings, our responses to the Weirton Area Water Board and our verbal response to the comments which we just saw today

and do the proper thing and grant this permanent variance. Thank you.

CHAIRMAN SNYDER: Thank you, Mr. Vignovic. Ms. Bradley?

MS. BRADLEY: Ann Bradley, Spilman, Thomas and Battle. I would just add one point to what Mark has said. Both the DEP and the City of Weirton have suggested doing some sort of a stop gap measure of a year or a two-year variance. I don't know what EPA has said in their comments, we haven't seen those.

I'd point out that even in the City of Weirton's comments that they indicate that it would take a four-year lead time to do the capital infrastructure changes necessary to make this addition. We're just going to have to be back again on the same issue for the same reasons next year or the following year if you would do a one- or two-year variance and still not address the issue of whether, in fact, there's any environmental impact resulting from this discharge from Weirton Steel. That's all I have to add; thank you.

CHAIRMAN SNYDER: Thank you very much. Any additional comments by anyone? I thank you and I believe we need to --

MS. CHATFIELD: This is on our agenda for discussion tomorrow and --

CHAIRMAN SNYDER: Tomorrow; right.

MS. CHARLES: And comment period ends today?

MS. CHATFIELD: Yeah, comment period ends at the end of the hearing and --

CHAIRMAN SNYDER: We have some reading to do this evening, gentlemen.

MS. CHATFIELD: -- and just as a reminder, the APA, Administrative Procedures Act, does provide for ex parte -- limitation on additional communications -- ex parte communications after the close of the comment period until the Board makes its final decision. So we will have this on the agenda, but may limit further input on it during our discussion tomorrow until the decision is made.

CHAIRMAN SNYDER: Very good. Any Board comments, concerns?

DOCTOR ARMBRECHT: After that I'm afraid to.

MS. CHATFIELD: No, you're still okay today.

MR. VIGNOVIC: If there's any questions I can answer while you're still on record, if not we can answer them tomorrow.

DOCTOR ARMBRECHT: Is it all right to ask one question? The Rivers Coalition, with regard to that submission, can I ask Mark a question on that?

MS. CHARLES: Yes.

DOCTOR ARMBRECHT: Mark, The Rivers, in response to no

problems, under their Attachment A, can you help us a little bit on what that means? They're suggesting -- look for the one headed West Virginia Rivers Coalition. I'm sorry, I thought you all had that.

My question, without getting into everything else that they're saying, is that a lot of our discussions have led into that your employees are the ones that are really taking the water within the five mile -- or the half mile, and that there are no health and that you've tested and so forth.

On page 3, point 2 there, Weirton Steel's NPDES violation records do not demonstrate sufficient ability or willingness to meet discharge limitations that help to protect human health.

And then the attachment that they have -- I haven't counted them up and, frankly, I haven't even had a chance to read. I don't know -- but just any general comment on the practically two pages plus of citations -- or that's not the best -- that's not the right word.

DOCTOR HACKNEY: Violations.

DOCTOR ARMBRECHT: Whatever those are, it's headed "Numeric Violations of Weirton Steel's NPDES Permit"; do you have any comments on those?

MR. VIGNOVIC: Well, first, we take about 6,000 samples in a year's time that's subject to an eco limitation or

potential violation. So you want to keep that in perspective here when you look at the opportunities to record an exceedance there.

The second, I really can't -- these don't -- they don't say which outlet it is. We have internal monitoring points; we have three external monitoring points and eight internal monitoring points, so I don't know which ones of these would apply to outlet 002. But I think at the last meeting this issue was raised and Matt Sweeney was here, our permit writer for the NPDES permit, and I think if you look back in the record you'll find that he had mentioned, after I had stated that I did not believe that outfall 002 was a source of compliance.

And if I would gather a -- or hazard a guess right now how many violations we've had at outlet 002 in the last three years, it may be three, four or five. I really don't know. It wouldn't be all of these here. There's internal monitoring points and external monitoring points, and for total suspended solids right now, they are asking the State of West Virginia to give us net limits for suspended solids, because when the river gets muddy and we pass the water through, as non-contact pooling water we are subject to violations, because we don't have a net limit.

DOCTOR ARMBRECHT: So you're saying that these roughly

150, and I might be off 10 or 20 percent, I just did a quick -- these roughly 150 are out of a potential of 18,000 tests?

MR. VIGNOVIC: Yeah, when you have about 6,000 samples in a year's time, it's --

DOCTOR ARMBRECHT: And these go from 1999 to 2002. So, you know, whatever it is, 15,000-plus. And you're saying that these are not necessarily from 002?

MR. VIGNOVIC: No, they're not; they're definitely --

DOCTOR ARMBRECHT: They are not from there or --

MR. VIGNOVIC: Well, some of them could be, but I would hazard a guess for the last three or four years you have a total of maybe -- you might see one or two violations in 002 in a year's time.

DOCTOR JENKINS: How many samples would you take at 002 during the year?

MR. VIGNOVIC: You probably have -- in a year's time, I would say it's several hundred; it's -- you know, it's in the hundreds.

DOCTOR ARMBRECHT: How many sites are there other than 002, that these would be reflective of?

MR. VIGNOVIC: There is 003, 004, 001, which very rarely has a discharge, and those are the external ones. And then internal you have 102, 103, 203, 104, 204, 304, 404, 504, and then you sample Harmon Creek upstream and

downstream.

DOCTOR ARMBRECHT: So you're saying there are 12, 13, 14 places where you're taking these tests on your NPDES?

MR. VIGNOVIC: That's permanent, yes.

DOCTOR ARMBRECHT: And that these 18,000 would be representative of those and you don't know where these are, from this information; is that what we're saying?

MR. VIGNOVIC: No, you don't know the value, you don't know --

DOCTOR ARMBRECHT: None of them are --

MR. VIGNOVIC: -- the reported value, you don't if -- you know, what the reason was that we said, was it background, was it suspended solids.

DOCTOR ARMBRECHT: They show some of that on here when they say total suspended. Thank you, Mr. Vignovic.

CHAIRMAN SNYDER: Yeah, thank you.

MS. CHARLES: What is -- what are you saying, internal sampling points or internal --

MR. VIGNOVIC: There's -- you know, we're a rather large facility, and the facility is subject to affluent guideline limitations that are promulgated by the EPA and they set technology requirements for the different units operations. So there's limitations that are derived at the internal points there that are based upon the amount of

steel that you produce and there's usually a separate treatment system with that type of waste water.

So, the guidelines require that you apply them at that point and then at the terminal treatment or the discharge point.

So, the blast furnace, for example, has a treatment system that's subject to affluent guidelines for iron making and you have limits there for total suspended solids, lead, zinc, phenol, cyanide, ammonia and pH. The state has also imposed a limitation for flow.

You sample all those things usually weekly; so, you know, over the course of 52 weeks there's 52 times whatever is there. You know, if there's 10 parameters at the end of the month the average sample that you fall under there and it just happens there, there's, you know, 8 or 9 waste -- individual waste water treatment systems that are internal prior to discharging to the sewer. Then it goes out through a final treatment plant, which may go through another outfall.

MS. CHARLES: So there's not an outlet? When you're talking about internal --

MR. VIGNOVIC: Outlet and outfall are the same thing, they're --

MS. CHATFIELD: They call them internal outlets or

internal outflows.

MS. CHARLES: What I'm trying to figure out, do you think that those really are included in -- what this is, is EPA's permit compliance system database and it says for which numeric violations were reported for one or more outlets.

MR. VIGNOVIC: They're probably --

MS. CHARLES: Do you think they go into that system or not?

MR. VIGNOVIC: Yeah, they all go into -- all the violations are put into EPA's compliance system database. It's, you know, available for anybody to get.

MS. CHARLES: Even the internal samplings?

MR. VIGNOVIC: Oh, yes, yes.

DOCTOR JENKINS: But these internal flows, as you're calling them, they empty into a common sewer that collects a number of internal sources?

MR. VIGNOVIC: Uh-huh.

DOCTOR JENKINS: And then that goes to a final treatment plant --

MR. VIGNOVIC: Uh-huh.

DOCTOR JENKINS: -- which is not 002?

MR. VIGNOVIC: There's three final treatment plants from the main facility, 002, 003 and 004. 002, you know, is

subject to the "half-mile rule" over here tonight. 102 goes into that outfall. 003 is downstream; that gets mostly water from our 10 mill; there's 103 and 203, which are two internal outfalls subject to that; that discharges below our intake. 004 discharges into Harmon Creek and there's five internal monitoring points for that, 102, 202 -- or 104, 204, 304, 404 and 504. Then we also have to monitor the Harmon Creek upstream and downstream as part of our variance condition, as part of our compliance demonstration under our NPDES permit.

Just for suspended solids, just as one there, when the river gets real muddy one day and you don't have net limits it may cause a violation at several outfalls, because you're bringing in the same amount of water, it's going through an internal treatment system that can't remove all the solids. They're more designed for the heavier solids, not for fine river silt, so it will go through, say, outfall 204, cause a violation there, go though outfall 004 and the same incident will cause a violation there. And then if it's high enough on the daily sample to have the -- or the monthly average would be out of whack for the month.

So, unless you look at each one of these here, it's really hard to say. They are, I am sure, looking at all the permanent outfalls.

CHAIRMAN SNYDER: Any more questions? Staff, any questions?

Again, thank you very much and we will go off the record.

(WHEREUPON, the hearing concluded at 7:37 p.m.)

REPORTER'S CERTIFICATE

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to-wit:

I, Karen R. Meyers, Certified Court Reporter and Notary Public within and for the State aforesaid, 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 the hearing held in the foregoing-styled matter on the 16th day of December, 2002.

Given under my hand this 18th day of December, 2002.

Karen R. Meyers

KAREN R. MEYERS, CERTIFIED COURT REPORTER

COMMISSIONER FOR STATE OF WEST VIRGINIA

My commission expires: April 15, 2012.

OFFICIAL SEAL
COMMISSIONER FOR
STATE OF WEST VIRGINIA
KAREN R. MEYERS
140 PETERS DR.
BECKLEY, W.VA. 25801
My commission expires April 15, 2012

KRM

WV Environmental Quality Board
DECEMBER 16, 2002
PUBLIC HEARING
7:00 P.M.
Sign-In Sheet

NAME:	SPEAKING:
1) Mark Vignovic	Yes
2) Ann Bradley	Yes
3)	
4)	
5)	
6)	
7)	
8)	
9)	
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WEST VIRGINIA RIVERS COALITION

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

December 16, 2002

Dr. Ed Snyder, Chair
West Virginia Environmental Quality Board
1615 Washington St., East, Suite 301
Charleston, WV 25311

Dear Dr. Snyder,

The following comments are submitted by the non-profit organization, West Virginia Rivers Coalition, on behalf of their 3,000 members and 48 affiliate organizations dedicated to the conservation and restoration of West Virginia's exceptional rivers and streams. The comments pertain to the proposed legislative rule amendment for Title 46, CSR 1, Requirements Governing Water Quality Standards.

West Virginia Rivers Coalition objects to Weirton Steel's request to remove the date parameter of the exemption provision in section 7.2.a.2 of West Virginia's Water Quality Standards. Our objections are based upon historic review of Weirton Steel's stewardship, realistic views of economic influences and the intentions of the Clean Water Act.

Weirton Steel.
An exemption to section 7.2.a.2 was granted to Weirton Steel in 1997. The exemption was granted through June of 2003 so that Weirton Steel could pursue the option of acquiring all their drinking water from the City of Weirton. This solution has not been implemented and Weirton Steel has provided little evidence of initiation and follow-through with the city. We are left to question Weirton Steel's willingness to satisfy the intent of the exemption as it was originally awarded.

At the November 2002 EQB meeting, Weirton Steel was praised for being environmentally conscious and stated, without being specific, that they had minimal pollution violations. A review of the Environmental Protection Agency's (EPA) Permit Compliance System Database shows numerous violations of water quality standards. Violations from January of 1999 through December 5, 2002 are listed in Attachment A. These include violations of discharge limitations for pollutants with criteria for Public A human health protection including lead, fluoride and chromium, hexavalent. Weirton Steel's presentation as a corporation with good environmental practice is not apparent in their record. The record speaks volumes about Weirton Steel's capability to protect their employee's drinking water.

Economy.
West Virginia Rivers Coalition objects to the *permanent* nature of this exemption request on the simple fact that natural resources are inherently more permanent than economic resources. We cannot predict the economic turns that will influence the longevity of Weirton Steel. In cities such as Pittsburgh, for example, riverfront steel industrial sites have become desirable locations for residential development after industry has closed or moved. A *permanent* exemption which does not serve to protect for these future uses, would only deter potential growth in a changing economic environment.

More so, the type and nature of pollutant discharges may be tied to manufacturing process changes that Weirton Steel makes in response to smaller economic shifts, such as those mentioned at the August EQB meeting. But, the Ohio River will continue to be the receiving agent of any operation at the Weirton Steel site, therefore long-term protections afforded the river should be maintained. Exempting Weirton Steel from section 7.2.a.2 will remove DEP oversight to establish, "for any discharge, effluent limitations for the protection of human health that require additional removal of pollutants".

Clean Water Act.
In addition to a loss of oversight by DEP, a permanent exemption is an apparent attempt to usurp the intent of the Clean Water Act's protection of future uses. Permanently allowing a pollutant discharge level, may remove any ability to move the water body to a more stringent designated use. EPA is not likely to approve any permanent treatment of a water body because of its limitations for responding to future conditions.

In summary, West Virginia Rivers Coalition sees little motivation for EQB to support this exemption request by Weirton Steel.

1. Weirton Steel has not demonstrated sufficient willingness to resolve their potable water needs without applying for an exemption to the 1/2-mile zone protections provided in 7.2.a.2.
2. Weirton Steel's NPDES violation records do not demonstrate sufficient ability or willingness to meet discharge limitations that help to protect human health.
3. The Ohio River will remain a natural resource much longer than Weirton Steel's present manufacturing process may be an economic resource. DEP oversight and EPA's provision for future uses should be protected.

West Virginia Rivers Coalition hopes that the EQB will carefully weigh the long-term implications of granting an exemption to 7.2.a.2 with the longer-term protections afforded by our laws and needed by our resources. West Virginia Rivers Coalition asks that the Environmental Quality Board deny Weirton Steel's exemption request.

Sincerely,

Liz Garland
Issues Coordinator

ATTACHMENT A

NUMERIC VIOLATIONS OF WEIRTON STEEL'S NPDES PERMIT
SINCE JANUARY 1999

Results are based on data extracted on DEC-05-2002 from EPA's Permit Compliance System Database, using an online search. Months are listed when one or more numeric violations were reported for one or more outlets for each pollutant.

SOLIDS, TOTAL SUSPENDED
SEP-2002
JUL-2002
JUN-2002
MAY-2002
APR-2002
FEB-2002
JAN-2002
DEC-2001
MAR-2001
FEB-2001
JAN-2001
DEC-2000
SEP-2000
AUG-2000
JUL-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
NOV-1999
OCT-1999
SEP-1999
APR-1999
MAR-1999
FEB-1999
JAN-1999

OIL AND GREASE FREON EXTR-GRAV METH
AUG-2002
JUL-2002
JUN-2002
FEB-2002
DEC-2001
NOV-2001
OCT-2001
AUG-2001
JUN-2001
MAY-2001
APR-2001
MAR-2001
JAN-2001
DEC-2000
SEP-2000
AUG-2000
MAY-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
NOV-1999
OCT-1999
SEP-1999
AUG-1999
JUL-1999

JUN-1999
MAY-1999
APR-1999
MAR-1999
FEB-1999
JAN-1999

CHROMIUM, HEXAVALENT (AS CR)
JUL-2002
MAY-2002
MAR-2002
DEC-2001
AUG-2001
MAR-2000
DEC-1999
AUG-1999
JUN-1999
FEB-1999
JAN-1999

CHROMIUM, TOTAL (AS CR)
JUL-2002
FEB-1999

ZINC, TOTAL (AS ZN)
JUL-2002
JUN-2002
MAY-2002
DEC-2001
NOV-2001
OCT-2001
SEP-2001
AUG-2001
JUL-2001
JUN-2001
MAY-2001
APR-2001
MAR-2001
JAN-2001
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Weirton Area Water Board

200 MUNICIPAL PLAZA - WEIRTON, WV 26062

December 5, 2002

Mr. Ed Snyder
Chairman
WV Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2126

Re: Public comment from the Weirton Area Water Board to be read into the record during the Weirton Steel public hearing before the WV Environmental Quality Board regarding their request for a permanent variance to the "Half Mile Rule".

Dear Chairman Snyder,

As per your invitation extended through Melissa Carte of the WV Environmental Quality Board enclosed please find our comment which we would like to have read into the public record during the public hearing on December 16, 2002 at 6:30 pm at your offices in Charleston with regard to Weirton Steel's request for a permanent variance to the "Half Mile Rule". Unfortunately timing for public notification limited your being able to grant our request to hold this meeting in Weirton; we intended to attend and comment at that time. We appreciate your invitation to read our written comments into the public record. If you have any questions with regard to our comments please contact me at your convenience.

Sincerely,

Jim Shockley

Chairman
Weirton Area Water Board
phone: 1-304-797-8566

Weirton Area Water Board

200 MUNICIPAL PLAZA - WEIRTON, WV 26062

December 5, 2002

Mr. Ed Snyder
Chairman
WV Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2126

Re: Public comment from the Weirton Area Water Board to be read into the record during the Weirton Steel public hearing before the WV Environmental Quality Board regarding their request for a permanent variance to the "Half Mile Rule".

Dear Chairman Snyder,

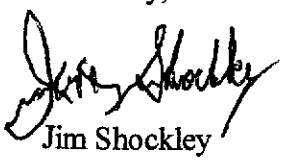
On behalf of the Weirton Area Water Board (WAWB) I would like to thank Chairman Snyder for making this opportunity available for us to enter our comments into the public record with regard to Weirton Steel Corporation's (WSC) request for a permanent variance to the "Half Mile Rule."

The WAWB would like to reach an agreement with WSC and sell WSC quality potable water at a reasonable price. Several years ago we invested approximately $20,000 and numerous staff man hours into an engineering facility's plan to determine that we could provide WSC approximately four million gallons of potable water per day for approximately less than half the cost charged to our other residential and industrial customers. Since capital improvements to the Weirton Water Treatment Plant would need to be made to accommodate WSC's water demands the City also included in this proposal a four year lead time for delivery of potable water to the WSC connection points. The City justified this significant discount because the purchase water agreement did not include line distribution maintenance throughout the WSC facilities; our responsibility would end at the metered connection points established by WSC and City engineers. The negotiations with WSC at that time also included an opportunity for WSC to provide capital improvement funding directly to the City which would result in the City being able to provide an even greater discount to WSC for potable water. The City was under the understanding that negotiations were progressing in a mutually favorable manner but since WSC was approaching a deadline to comply with the "Half Mile Rule" more time would be needed to complete the negotiations, perform all the capital improvements and provide WSC with potable water. Upon WSC's request the City agreed to document its support for the extension to the Environmental Quality Board and WV State Legislature supporting WSC's variance to the "Half Mile Rule." The variance was granted for a three year period and the City continued to make attempts to negotiate a purchase water agreement with WSC..

Since the WSC variance was approved the City established the WAWB which has continued to approach the prospect of selling water to WSC in a favorable manner. Unfortunately WSC has not responded to our requests to continue serious negotiations for the purchase of potable water until recently. Although WSC discontinued these negotiations for reasons known to them, the WAWB has continued to work toward obtaining federal or state grants which could be used toward providing additional discounts to WSC's potable water price. Recently the WAWB has met with Congressman Alan Mollohan in an effort to obtain federal funds to capitalize on plant expansion and provide an even greater water discount to WSC; we are still awaiting the outcome of these meetings. Within the past several years the WAWB has also invested in the development of a hydraulic model for the entire city water distribution system which has been used to project water flow and pressure potentials at proposed connection sites to WSC. The hydraulic model developed by Thrasher Engineering of Charleston has been used to improve the facilities plan to further insure WSC potable water demands can be met at all proposed connection sites. The City and the WAWB has invested significant money and time in developing a purchase water agreement that will provide WSC with quality water that will meet current and future state and federal water quality regulations, meet WSC potable water demands, and insure adequate water production capacities for future development.

WSC's interest in negotiating a purchase water agreement appears to be dependent upon the implementation deadline of the "Half Mile Rule." It is our opinion that if a permanent variance is granted to WSC's outfall 002 WSC will discontinue negotiations with the WAWB and a purchase water agreement will never be negotiated. Future water quality regulations are requiring nearly all public water systems to capitalize on equipment necessary to meet more stringent water quality standards. When these costs are distributed across a larger number of gallons sold the increased cost per gallon of water produced are lower. It is therefore our opinion that negotiating a purchase water agreement with WSC would be in favor of WSC and the entire Weirton Community. Due to the investment of time and money the WAWB has made in continuing to develop the best possible price for a purchase water agreement, and due to the fact our requests to Congressman Mollohan are still outstanding we are requesting that no more than a one year extension be granted at this time to WSC for their variance to the "Half Mile Rule." It is also our opinion that a one year limitation to this variance will keep WSC interested in continuing negotiations for a purchase water agreement that will benefit all residents, businesses, and future development for the City of Weirton.

Sincerely,



Jim Shockley

Chairman
Weirton Area Water Board

FAX TRANSMISSION

To: Elizabeth Chatfield
Technical Advisor
Environmental Quality Board

Date: December 16, 2002

Fax #: (304) 558-4116

Pages: 3, including this cover sheet.

From: Jennifer Sincock
Virginia/West Virginia Branch
Office of Watersheds

Subject: December 16, 2002 Public Hearing for Weirton Steel Corporation's proposal to change West Virginia Water Quality Standards

COMMENTS:

Enclosed, please find comments regarding the proposed revision to permanently extend Weirton Steel Corporation's current exemption from the "half-mile rule" of West Virginia's Water Quality Standards, 46 CSR 1, Section 7.2.a.2. These comments will also be sent to you by mail. If there are any questions or concerns regarding these comments, please contact Cheryl Atkinson at (215) 814-3392 or me at (215) 814-5766. Thank you.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

DEC 16 2002

Dr. Edward M. Snyder, Ph.D., Chair
Environmental Quality Board
1615 East Washington Street
Charleston, WV 25311-2126

Dear Dr. Snyder:

The West Virginia Environmental Quality Board (EQB) has issued a public notice of the proposed change to permanently exempt Weirton Steel from West Virginia's Water Quality Standards, 46 CSR 1, Section 7.2.a.2, which requires that segments of streams located within one-half mile above public water supply intakes are protected by prohibiting the discharge of any pollutants in excess of the concentrations designated for the Public Water Supply designated use (the half-mile rule). Specifically, Weirton is proposing that a permanent exemption apply to its public drinking water intake which is located approximately 1,500 feet downstream of the discharge from outfall 002. EPA is transmitting these comments to assist the EQB in adopting protective Water Quality Standards and ultimately help achieve state water quality objectives.

A temporary variance to the half-mile rule was first approved by the West Virginia Legislature on June 1, 1999 and submitted to the EPA on May 25, 2000, pursuant to Section 303 (c) (1) of the Clean Water Act (CWA) and 40 CFR 131.20 (a). This revision added a sentence to 46 CSR 1, Section 7.2.a.2 which exempts, until June 30, 2003, a stretch of the Ohio River from the one-half mile protection zone outlined in that section. In its September 30, 2002 letter to the EQB, EPA withheld approval of the exemption, at 40 CFR Section 131.11 (a) (1), because this variance may be contrary to the requirement that requires states to adopt water quality criteria to protect the designated use. At that time, EPA asked the EQB to clarify how this variance will ensure protection of human health use (no scientific rationale for this provision had been submitted to EPA). This temporary variance from the half mile rule until June 30, 2003, is considered to be in effect for CWA purposes because 40 CFR 131.21(c) (the Alaska Rule) provides that standards already in effect and submitted to the EPA by May 30, 2000 may be used for CWA purposes, whether or not approved by EPA.

The proposal would change the current Weirton Steel water quality standard exemption by deleting the words "Until June 30, 2003," thereby making permanent the Weirton Steel exception from the half-mile rule. EPA sees this as a Water Quality Standards change and as such will have a statutory duty to review the submission if adopted by West Virginia. A variance is a short-term exemption from meeting certain otherwise applicable water quality standards and may not be used to invoke permanent exemptions from water quality standards. Instead, EPA advises that West Virginia consider this proposed exemption as a site-specific water quality

standard revision. In establishing such a revision, West Virginia would be expected to follow the procedures, set forth in 40 CFR Part 131, for revising water quality standards. In particular, West Virginia should provide analysis and documentation that the site-specific exemption from the half-mile rule maintains protection of the designated use, either by meeting protective criteria at the drinking water intake (i.e., a site-specific mixing zone) or by establishing protective alternative criteria. By following these procedures, West Virginia would ensure the protection of the drinking water use.

Thank you. If you have any questions concerning this letter please, contact Ms. Cheryl Atkinson at (215) 814-3392.

Sincerely,

Joseph T. Piotrowski, Associate Director
Water Protection Division

558-4116

Division of Water Resources
1201 Greenbrier Street
Charleston, WV 25311
Telephone: (304) 558-4086
Fax: (304) 558-5903

West Virginia Department of Environmental Protection

Bob Wise
Governor

Michael O. Callaghan
Cabinet Secretary

December 16, 2002

Edward M. Snyder, Ph.D., Chair
Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, WV 25311-2125

Re: Weirton Steel's ½ Mile Rule
Permanent Variance Request Comments

Dear Mr. Snyder:

The Department of Environmental Protection (DEP), Division of Water Resources (DWR) appreciates the opportunity to comment on the Weirton Steel request for a permanent variance to the half mile rule as stated in 46 CSR 1, 7.2.a.2 of the West Virginia Legislative Rules. DEP offers the following comments regarding the permanent variance request:

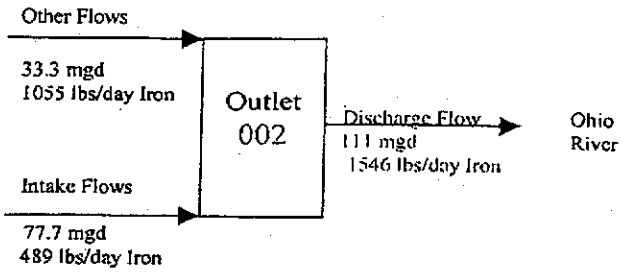
1. DEP cannot support a permanent variance to the half mile rule, which exists to protect drinking water intakes, when the Office of Environmental Health Services expresses its concern with the proximity of the Outlet 002 discharge to the intake. Human Health criteria are established based upon a cancer risk level spread over a 70 year life expectancy. Has the Company established studies of their employees to verify that no problems exist?

2. DEP questions a need for the variance to the half mile rule in its entirety. The current existing parameters of concern which must be met for human health criteria with end of pipe limitations are free cyanide, ammonia nitrogen, and iron. The proposed end of pipe effluent limits for these parameters and the long term averages of the discharge at Outlet 002 are listed below:

Parameter	Proposed Effluent Limit (End of Pipe w/o Variance)	Long Term Average at 002 (Data from Jan 98-Dec 00)
Free Cyanide	0.005 mg/l	0.00395 mg/l
Ammonia Nitrogen	1.77 mg/l	0.45 mg/l
Iron	1.5 mg/l	3.25 mg/l

As noted above, the permittee should be able to meet end of pipe effluent limits for free cyanide and ammonia nitrogen without a variance from the half mile rule. However, iron is a parameter of concern and is discussed in the next item.

3. What actions on the company's part have occurred to fully evaluate all other wastestreams associated with the discharge excluding non-contact cooling water (NCCW)? In-stream background data for iron coupled with 70% of the discharge being NCCW and the effluent data from 002 reflect that high loadings of iron are coming from wastestreams unrelated to NCCW.



What are the additional sources of these iron loadings? Has the company pursued further technology based evaluations including the rerouting of wastestreams for internal treatment?

4. The company claims that the plume from the Outlet 002 discharge is buoyant while the intake is located at the bottom of the river. Suspect their assertion is due to temperature and low retention times in the 002 basins. What studies has the company done to ensure that the plume from Outlet 002 is not having an impact on the intake? Are these studies relative to the parameters of concern mentioned above?

5. Why hasn't the Company been more aggressive in pursuing the option of seeking information from the City on costs for upgrading to secure drinking water? The original variance and various extensions appeared to have been granted premised on that basis. There appear to be conflicting views from the City and the Company regarding the halted negotiations. DEP suspects that if a permanent variance is granted that the Company will discontinue negotiations with the City, or at a minimum, further slow down any continued negotiation process between them. Perhaps an extension to the variance (1 or 2 years) with stipulated milestones entered into the variance to ensure the Company makes active progress towards reaching an agreement is needed.

6. Why hasn't the company pursued other options? Even though expanding the City to provide the Company with potable water appears to be the ideal solution for all parties, the issue here is the proximity of the discharge to the intake and the potential impact of the Company's effluent on said intake. The end of pipe limitations for human health criteria upstream of the intake are proposed to assure compliance with standards set to protect the Category A Use designation and other related Board standards, whether it be a private or public intake. While the Company has stated that upgrading treatment at 002 is unreasonable, the option of relocating the intake upstream of Outlet 002 appears to be cost effective. Not only could it be cost effective, it would allow for a mixing zone for human health criteria at the 002 discharge and provide a human health benefit to the workers who consume water at the Company.

We trust these comments will assist the Board in reevaluating its position to add permanency to the variance and again suggest that any variance be limited, not only in time but in parameters, and include milestones that would eliminate any future need for any such variance.

Sincerely,

William D. Brannon
Acting Director

WDB:mls

WEIRTON
STEEL CORPORATION

December 16, 2002

Mr. Edward Snyder, Ph.D., Chair
West Virginia Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, WV 25311-2126

Re: Requirements Governing Water Quality Standards – Section 7.2.a.2

Dear Mr. Snyder:

This letter serves to respond to the comments contained in a letter you received from the Weirton Area Water Board ("WAWB") dated December 5, 2002 regarding a proposed change to Section 7.2.a.2 of the West Virginia Water Quality Standards, which is commonly referred to as the "half-mile rule" ("Rule"). The WAWB has requested that the Environmental Quality Board ("EQB") only grant a one year extension to the existing variance for the language at Section 7.2.a.2 so as to keep Weirton Steel Corporation ("WSC") at the bargaining table to continue discussions on potable water purchase from the WAWB. The WAWB makes no claims of any adverse environmental impact from the proposed change. Instead the WAWB suggests that WSC is currently having discussions with the WAWB only because of its pending request to make WSC's site-specific exemption to the Rule permanent. This assertion is simply not true. On the contrary, the removal of the Rule from the negotiating table should finally get both parties on the same page if they are to reach agreement on the financial terms of this project.

Weirton Steel has consistently maintained that **any decision regarding the Rule should be based on environmental impacts**. The granting of a permanent variance will have no adverse environmental impact on the City of Weirton's ("City") water supply. The obvious point is that the City's intake isn't even within one-half mile of WSC's Outlet 002. The City's intake is located more than three miles downstream of Outlet 002 and is therefore not impacted by the existing Rule or the proposed exemption to the Rule.

The City's position seems to be that WSC should be obligated for the expense of a new intake - absent any justification that a new intake is even necessary to eliminate any adverse impacts on human health arising from the discharge at Outlet 002. The City has maintained that the cost of a new intake should be included in any cost analysis conducted during its negotiations with WSC. This position is simply inappropriate. WSC believes that it has presented a strong argument to the EQB regarding the lack of human health impacts from Outlet 002 on the WSC intake. The proposed change to the Rule will allow the WVDEP and WSC to use a modified mixing zone in developing health-based discharge limitations at Outlet 002. The need for a new intake only exists at this time because of the existence of the Rule in an environmental regulation and not because of any actual environmental need. Discharge limits can be imposed at Outlet

002 that would be protective of human health and would eliminate the need to relocate the WSC intake, upgrade the wastewater treatment system at outlet 002 or shutdown the WSC drinking water facility. Again, these limits would be fully protective of any human health concern and would eliminate the need for a financially struggling company to spend enormous amounts of money unnecessarily. Denying the variance provides no environmental protection benefits, nor human health benefits. Rather, the benefit that is gained is the City's ability to leverage WSC to increase its estimate of its internal water production costs by factoring in the cost of relocating its intake and/or any other of the listed remedies.

We cannot stress enough that this environmental issue is irrelevant to the negotiations, provides the City with unfair leveraging power, and should no longer be a distraction if both parties are to be fair and sincere at the negotiating table.

In addition to the lack of environmental impact of the proposed rule change on the City's water intake, it is important for the EQB have an understanding of WSC's recent efforts toward negotiating a water purchase agreement with the City.

In 1999, WSC engaged Michael Baker, Inc. Consulting Engineers ("Baker) to measure WSC's average daily and peak consumption of potable water. In addition, Baker was charged with developing a computerized model to conduct directional and flow analysis. Residual and static pressures were to be measured in order to determine pressure requirements to be met by the WAWB. Lastly, Baker was to determine the cost and feasibility of tie-in points in the north end of the City where WSC could tie-in to the WAWB distribution system. The cost for WSC to conduct this engineering study was more than $250,000 which included the cost for Baker's engineering services as well as for the purchase and installation of twenty (20) water meters with radio telemetry.

In 2000, WSC implemented certain cost saving measures and decided to delay all non-critical capital expenditures. This resulted in the Baker study being placed on hold until 2001. A preliminary report was prepared in July 2001 with a final report issued in September 2001. A copy of the final report was provided to the City in early 2002.

At the request of the WAWB, WSC sent letters to Congressman Mollohan and Senators Byrd and Rockefeller in early 2001 supporting the City's request for federal funding to be used to upgrade the City's water treatment plant. This action was necessary since it became obvious to both parties that significant financial assistance was needed for this project if it was to go forward due to the wide gap between WSC's existing costs for producing potable water and the prices for potable water that the WAWB was quoting WSC.

Because previous negotiations on a water purchase agreement between WSC and the City indicated a significant cost increase to WSC, as well as WSC's desire to focus its financial and legal resources on implementing its five part out-of-court restructuring plan, negotiations and discussions between the two parties did not occur during 2001 and early 2002. WSC's restructuring plan included a vendor financing program (completed in October of 2001), a new financing facility (completed in October of 2001), a bond exchange to restructure long term debt

(completed in June of 2002), and amendments to the WSC corporate charter and an asset acquisition program, both of which were recently voted on last week.

During a bimonthly meeting between the City of Weirton and WSC on April 18, 2002, WSC officials informed the City that the Company was going to pursue a permanent variance from the Rule. Further, they stated that they believed that the Rule should be "taken out of the equation" from the negotiations because the purchase of potable water from the City was not an environmental issue. WSC also discussed the fact that its NPDES Permit was up for renewal and that it was proposing to modify the existing water quality-based effluent limitations ("WQBELs") for WSC's Outlet 002 based on the use of a modified mixing zone that would not overlap the WSC intake. Since WSC would soon have three of the five parts of its financial restructuring program completed, the parties decided to initiate renewed discussions on negotiating a potable water agreement.

Since the April 18, 2002 meeting, WSC officials have met with officials from the City and/or the WAWB on at least six (6) occasions to discuss the purchase of potable water. All parties now have an understanding of the plant's desired expansion size, investment cost and WSC's economic breakeven point. Ultimately, WSC's decision on whether or not to purchase potable water from the WAWB will be primarily based on the economics of the agreement, specifically the purchase price of potable water.

As you can see from the attached letter to Weirton Mayor Dean Harris from Bill Kiefer of WSC dated November 1, 2002, WSC has tried to place this issue in the proper context with the City of Weirton. Likewise, we are hopeful that EQB is able to see that the granting of a permanent variance from the Rule to WSC will not result in any adverse environmental impacts. Further, notwithstanding the fact that the water negotiations should be irrelevant to the EQB's consideration and review of the Company's request for a permanent variance, WSC has repeatedly stated that a permanent variance will not result in the termination of WSC's desire to purchase water from the WAWB if an agreement can be reached that is affordable to both parties. In summary, denial of WSC's request to modify the Rule only serves to put WSC at a disadvantage in its negotiations with the WAWB as well as result in additional uncertainties as to the continued economic viability of the Company. Thank you for your time and consideration on this matter.

Sincerely yours,

Mark Vignovic

Mark Vignovic
Director, Environmental Control

WEIRTON
STEEL CORPORATION

William R. Kiefer
General Counsel and Secretary
Phone: (304) 797-2111
Fax: (304) 797-3484
e-mail: william.kiefer@weirton.com

November 1, 2002

Mayor Dean Harris
City of Weirton
200 Municipal Plaza
Weirton, WV 26062

Re: Half Mile Rule
Request for Permanent Variance

Dear Dean:

Several Weirton Steel Corporation personnel have told me that you expressed concern over a perceived lack of timely notification that the Company had filed what amounts to a permanent variance requested from the requirements of Section 7.2.a.2 of the State Water Quality Standards ("Request"), or what is commonly known as the "Half Mile Rule". Since I am concerned by your reaction, I am responding in writing so as to provide a clear basis for future discussions if the same prove necessary and also to give you the comfort of having a written position from Weirton Steel.

Water purchases and the Half Mile Rule have been discussed in recent bimonthly meetings between the parties. In the April 18, 2002 meeting, Mark Vignovic, the Company's Director of Environmental Control, informed the City that the Company was still going to pursue a permanent variance from the Half Mile Rule. Further, he stated his belief that the Half Mile Rule should be "taken out of the equation" from the water purchase negotiations because the purchase of potable water from the City is simply not an environmental issue and excused himself from WSC's water purchase negotiating team.

On a technical basis, he also discussed the fact that our NPDES Permit was up for renewal and that we were proposing to modify the existing water quality-based effluent limitations ("WQBELs") for WSC's Outlet 002 based on the use of a mixing zone that would not overlap the WSC intake. Since the WSC intake is located less than one half mile downstream of outfall 002, based on the language of the Half Mile Rule as it currently reads, the West Virginia Division of Environmental Protection ("WVDEP") will likely impose drinking water quality criteria as effluent limitations at outfall 002 in any NPDES Permit issued to WSC without any consideration of a mixing zone. As part of its NPDES Permit negotiations, WSC had proposed WQBELs based on a limited mixing zone for human health criteria in the event the Company's efforts to amend the Half Mile Rule were successful. (I am not sure I made this totally clear, but I think it suffices for our purposes.)

This is the perfect segue into, in my opinion, the two key elements of this issue, first the granting of a permanent variance will have no adverse impact on the City's water supply; and second, the Company is interested in purchasing potable water from the City.

The first obvious point is that the City's intake isn't even within one-half mile of outfall 002. As you may know, the City's intake is located more than three miles downstream of Outlet 002 and is therefore not impacted by the existing Half Mile Rule or the proposed exemption to the Rule. (The old "5 Mile Rule" applied but a similar permanent variance was started.)

In 1994 and 1995, WSC commissioned a study, which has been presented to WVDEP, ORSANCO and others, that demonstrates that the Company's discharge at outfall 002 (the outfall in question with respect to the Half Mile Rule) has no adverse impact on the water quality and aquatic community in the Ohio River. The Company also conducted a mixing zone analysis and a dilution study in 1995 and 1998 to develop WQBELS at outfall 002 that would be fully protective of the human health water quality criteria in the Ohio River including the vicinity of WSC's own intake.

Further, I want to take this opportunity to address specific concerns that you raised with Mark on Wednesday based on information that you learned from a newspaper article in the Charleston Gazette. First, the United States Environmental Protection Agency ("EPA") has not taken an adverse position to the Half Mile variance. In a letter received by the West Virginia Environmental Quality Board ("EQB") on October 3, 2002, the EPA states that it had not yet received the scientific rationale for the variance that ensures the protection of human health and that it was withholding its decision until the EQB provided the same.

Second, the West Virginia Bureau of Public Health did ask the Company whether its finished drinking water would be able to meet the new, more stringent Maximum Contaminant Levels ("MCL") for TTHM that will become effective in December, 2003. Based upon a review of our data that we have collected for TTHM since 1989, the Company believes that it will comply with the new MCLs. With respect to whether accidental spills could endanger the intake, the Company maintains an emergency shutdown plan. WSC has only had to shut the plant down one time due to a spill event. This occurred in 1988 due to a diesel fuel spill from an oil storage facility in Floreffe, Pennsylvania. This event also affected several other intakes on the Ohio River. However, the impact of an upstream spill is simply not relevant to the calculation of effluent limits for a discharge. This is especially true when the discharge and intake are owned and operated by the same entity.

Third, the DEP has requested additional information and clarification with respect to the Company's requested NPDES Permit changes. We are in the process of drafting a response to their questions. However, as with the EPA, the DEP has not taken an adverse position to the Request. We believe that the DEP's position is one of simply withholding its decision until it has received sufficient additional information and/or clarification from WSC, and has had a chance to review and study the information in conjunction with our requested NPDES Permit changes.

Lastly, Mark informed me that you were dismayed at the way the City was portrayed in the information that you had received. I don't know what you are upset about but can perhaps respond if you make me aware of specific concerns. I believe our efforts should be focused on the potable water purchase issue and that negotiations between the two parties will move forward at a more fruitful rate and depth if the City were to provide its costs related to the proposed expansion scenario(s) and the City's flows and pressure requirements for the proposed four tie in points.

I feel it necessary to raise this point since it appears to WSC that ever since we started our negotiations on this matter, the City's position is that the Company is obligated for the expense of a new intake, absent any justification that a new intake is even necessary to eliminate any adverse impacts on human health arising from the discharge at outfall 002. The City continues to maintain that the cost of this intake should be included in any cost analysis conducted during our negotiations. I believe I created this confusion when I originally opined that perhaps the Company could contribute its cost of moving the intake or the outfall to the construction cost of the water project which would reduce the City's construction cost and the resultant purchase rates. At the time that I made this suggestion Weirton Steel had a budget for projects such as this and such is simply no longer the case. I have not been considering this approach for a long time.

I hope that the information provided above alleviates your concerns with respect to this issue. As previously discussed, if we successfully agree on a water purchase rate that makes economic sense to both parties and the Company enters into an agreement for the same, we would still pursue a permanent variance so as to provide a reliable backup to the City's system. The time and expense that the Company has gone through to chase down previous three-year variances is worth avoiding. (Even though the variance may be good for three years, to extend it, we have to start the process more than a year before the deadline.) We should focus our negotiations on finalizing the true costs of this project so that we can pursue alternative funding sources to cover any shortfalls in the event they arise, if both parties are to avoid or minimize any rate increases.

We share a long, and I 'd like to think cooperative, history between the two parties. WSC is committed to continuing along this path, and we truly want an arrangement which is a win-win for both parties if at all possible. We look forward to continuing our discussions.

If you would like to discuss this issue further, please do not hesitate to call me.

Very truly yours,

William R. Kiefer
Secretary and General Counsel

Division of Water Resources
1201 Greenbrier Street
Charleston, WV 25311
Telephone: (304) 558-4086
Fax: (304) 558-5903

West Virginia Department of Environmental Protection

Bob Wise
Governor

Michael O. Callaghan
Cabinet Secretary

December 16, 2002

Edward M. Snyder, Ph.D., Chair
Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, WV 25311-2125

Re: Weirton Steel's ½ Mile Rule
Permanent Variance Request Comments

Dear Mr. Snyder:

The Department of Environmental Protection (DEP), Division of Water Resources (DWR) appreciates the opportunity to comment on the Weirton Steel request for a permanent variance to the half mile rule as stated in 46 CSR 1, 7.2.a.2 of the West Virginia Legislative Rules. DEP offers the following comments regarding the permanent variance request:

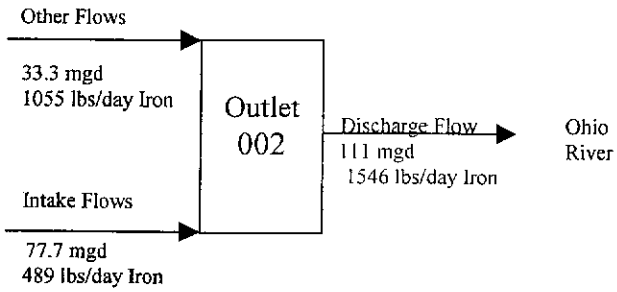
1. DEP cannot support a permanent variance to the half mile rule, which exists to protect drinking water intakes, when the Office of Environmental Health Services expresses its concern with the proximity of the Outlet 002 discharge to the intake. Human Health criteria are established based upon a cancer risk level spread over a 70 year life expectancy. Has the Company established studies of their employees to verify that no problems exist?

2. DEP questions a need for the variance to the half mile rule in its entirety. The current existing parameters of concern which must be met for human health criteria with end of pipe limitations are free cyanide, ammonia nitrogen, and iron. The proposed end of pipe effluent limits for these parameters and the long term averages of the discharge at Outlet 002 are listed below:

Parameter	Proposed Effluent Limit (End of Pipe w/o Variance)	Long Term Average at 002 (Data from Jan 98-Dec 00)
Free Cyanide	0.005 mg/l	0.00395 mg/l
Ammonia Nitrogen	1.77 mg/l	0.45 mg/l
Iron	1.5 mg/l	3.25 mg/l

As noted above, the permittee should be able to meet end of pipe effluent limits for free cyanide and ammonia nitrogen without a variance from the half mile rule. However, iron is a parameter of concern and is discussed in the next item.

3. What actions on the company's part have occurred to fully evaluate all other wastestreams associated with the discharge excluding non-contact cooling water (NCCW)? In-stream background data for iron coupled with 70% of the discharge being NCCW and the effluent data from 002 reflect that high loadings of iron are coming from wastestreams unrelated to NCCW.



What are the additional sources of these iron loadings? Has the company pursued further technology based evaluations including the rerouting of wastestreams for internal treatment?

4. The company claims that the plume from the Outlet 002 discharge is buoyant while the intake is located at the bottom of the river. Suspect their assertion is due to temperature and low retention times in the 002 basins. What studies has the company done to ensure that the plume from Outlet 002 is not having an impact on the intake? Are these studies relative to the parameters of concern mentioned above?

5. Why hasn't the Company been more aggressive in pursuing the option of seeking information from the City on costs for upgrading to secure drinking water? The original variance and various extensions appeared to have been granted premised on that basis. There appear to be conflicting views from the City and the Company regarding the halted negotiations. DEP suspects that if a permanent variance is granted that the Company will discontinue negotiations with the City, or at a minimum, further slow down any continued negotiation process between them. Perhaps an extension to the variance (1 or 2 years) with stipulated milestones entered into the variance to ensure the Company makes active progress towards reaching an agreement is needed.

6. Why hasn't the company pursued other options? Even though expanding the City to provide the Company with potable water appears to be the ideal solution for all parties, the issue here is the proximity of the discharge to the intake and the potential impact of the Company's effluent on said intake. The end of pipe limitations for human health criteria upstream of the intake are proposed to assure compliance with standards set to protect the Category A Use designation and other related Board standards, whether it be a private or public intake. While the Company has stated that upgrading treatment at 002 is unreasonable, the option of relocating the intake upstream of Outlet 002 appears to be cost effective. Not only could it be cost effective, it would allow for a mixing zone for human health criteria at the 002 discharge and provide a human health benefit to the workers who consume water at the Company.

We trust these comments will assist the Board in reevaluating its position to add permanency to the variance and again suggest that any variance be limited, not only in time but in parameters, and include milestones that would eliminate any future need for any such variance.

Sincerely,

William D. Brannon
Acting Director

WDB:mls

FAX TRANSMISSION

To: Elizabeth Chatfield
Technical Advisor
Environmental Quality Board

Date: December 16, 2002

Fax #: (304) 558-4116

Pages: 3, including this cover sheet.

From: Jennifer Sincock
Virginia/West Virginia Branch
Office of Watersheds

Subject: December 16, 2002 Public Hearing for Weirton Steel Corporation's proposal to change West Virginia Water Quality Standards

COMMENTS:

Enclosed, please find comments regarding the proposed revision to permanently extend Weirton Steel Corporation's current exemption from the "half-mile rule" of West Virginia's Water Quality Standards, 46 CSR 1, Section 7.2.a.2. These comments will also be sent to you by mail. If there are any questions or concerns regarding these comments, please contact Cheryl Atkinson at (215) 814-3392 or me at (215) 814-5766. Thank you.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

DEC 16 2002

Dr. Edward M. Snyder, Ph.D., Chair
Environmental Quality Board
1615 East Washington Street
Charleston, WV 25311-2126

Dear Dr. Snyder:

The West Virginia Environmental Quality Board (EQB) has issued a public notice of the proposed change to permanently exempt Weirton Steel from West Virginia's Water Quality Standards, 46 CSR 1, Section 7.2.a.2, which requires that segments of streams located within one-half mile above public water supply intakes are protected by prohibiting the discharge of any pollutants in excess of the concentrations designated for the Public Water Supply designated use (the half-mile rule). Specifically, Weirton is proposing that a permanent exemption apply to its public drinking water intake which is located approximately 1,500 feet downstream of the discharge from outfall 002. EPA is transmitting these comments to assist the EQB in adopting protective Water Quality Standards and ultimately help achieve state water quality objectives.

A temporary variance to the half-mile rule was first approved by the West Virginia Legislature on June 1, 1999 and submitted to the EPA on May 25, 2000, pursuant to Section 303 (c) (1) of the Clean Water Act (CWA) and 40 CFR 131.20 (a). This revision added a sentence to 46 CSR 1, Section 7.2.a.2 which exempts, until June 30, 2003, a stretch of the Ohio River from the one-half mile protection zone outlined in that section. In its September 30, 2002 letter to the EQB, EPA withheld approval of the exemption, at 40 CFR Section 131.11 (a) (1), because this variance may be contrary to the requirement that requires states to adopt water quality criteria to protect the designated use. At that time, EPA asked the EQB to clarify how this variance will ensure protection of human health use (no scientific rationale for this provision had been submitted to EPA). This temporary variance from the half mile rule until June 30, 2003, is considered to be in effect for CWA purposes because 40 CFR 131.21(c) (the Alaska Rule) provides that standards already in effect and submitted to the EPA by May 30, 2000 may be used for CWA purposes, whether or not approved by EPA.

The proposal would change the current Weirton Steel water quality standard exemption by deleting the words "Until June 30, 2003," thereby making permanent the Weirton Steel exception from the half-mile rule. EPA sees this as a Water Quality Standards change and as such will have a statutory duty to review the submission if adopted by West Virginia. A variance is a short-term exemption from meeting certain otherwise applicable water quality standards and may not be used to invoke permanent exemptions from water quality standards. Instead, EPA advises that West Virginia consider this proposed exemption as a site-specific water quality

standard revision. In establishing such a revision, West Virginia would be expected to follow the procedures, set forth in 40 CFR Part 131, for revising water quality standards. In particular, West Virginia should provide analysis and documentation that the site-specific exemption from the half-mile rule maintains protection of the designated use, either by meeting protective criteria at the drinking water intake (i.e., a site-specific mixing zone) or by establishing protective alternative criteria. By following these procedures, West Virginia would ensure the protection of the drinking water use.

Thank you. If you have any questions concerning this letter please, contact Ms. Cheryl Atkinson at (215) 814-3392.

Sincerely,

Joseph T. Piotrowski, Associate Director
Water Protection Division

WEST VIRGINIA RIVERS COALITION

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

December 16, 2002

Dr. Ed Snyder, Chair
West Virginia Environmental Quality Board
1615 Washington St., East, Suite 301
Charleston, WV 25311

Dear Dr. Snyder,

The following comments are submitted by the non-profit organization, West Virginia Rivers Coalition, on behalf of their 3,000 members and 48 affiliate organizations dedicated to the conservation and restoration of West Virginia's exceptional rivers and streams. The comments pertain to the proposed legislative rule amendment for Title 46, CSR 1, Requirements Governing Water Quality Standards.

West Virginia Rivers Coalition objects to Weirton Steel's request to remove the date parameter of the exemption provision in section 7.2.a.2 of West Virginia's Water Quality Standards. Our objections are based upon historic review of Weirton Steel's stewardship, realistic views of economic influences and the intentions of the Clean Water Act.

Weirton Steel.
An exemption to section 7.2.a.2 was granted to Weirton Steel in 1997. The exemption was granted through June of 2003 so that Weirton Steel could pursue the option of acquiring all their drinking water from the City of Weirton. This solution has not been implemented and Weirton Steel has provided little evidence of initiation and follow-through with the city. We are left to question Weirton Steel's willingness to satisfy the intent of the exemption as it was originally awarded.

At the November 2002 EQB meeting, Weirton Steel was praised for being environmentally conscious and stated, without being specific, that they had minimal pollution violations. A review of the Environmental Protection Agency's (EPA) Permit Compliance System Database shows numerous violations of water quality standards. Violations from January of 1999 through December 5, 2002 are listed in Attachment A. These include violations of discharge limitations for pollutants with criteria for Public A human health protection including lead, fluoride and chromium, hexavalent. Weirton Steel's presentation as a corporation with good environmental practice is not apparent in their record. The record speaks volumes about Weirton Steel's capability to protect their employee's drinking water.

Economy.
West Virginia Rivers Coalition objects to the *permanent* nature of this exemption request on the simple fact that natural resources are inherently more permanent than economic resources. We cannot predict the economic turns that will influence the longevity of Weirton Steel. In cities such as Pittsburgh, for example, riverfront steel industrial sites have become desirable locations for residential development after industry has closed or moved. A *permanent* exemption which does not serve to protect for these future uses, would only deter potential growth in a changing economic environment.

More so, the type and nature of pollutant discharges may be tied to manufacturing process changes that Weirton Steel makes in response to smaller economic shifts, such as those mentioned at the August EQB meeting. But, the Ohio River will continue to be the receiving agent of any operation at the Weirton Steel site, therefore long-term protections afforded the river should be maintained. Exempting Weirton Steel from section 7.2.a.2 will remove DEP oversight to establish,"for any discharge, effluent limitations for the protection of human health that require additional removal of pollutants".

Clean Water Act.
In addition to a loss of oversight by DEP, a permanent exemption is an apparent attempt to usurp the intent of the Clean Water Act's protection of future uses. Permanently allowing a pollutant discharge level, may remove any ability to move the water body to a more stringent designated use. EPA is not likely to approve any permanent treatment of a water body because of its limitations for responding to future conditions.

In summary, West Virginia Rivers Coalition sees little motivation for EQB to support this exemption request by Weirton Steel.

1. Weirton Steel has not demonstrated sufficient willingness to resolve their potable water needs without applying for an exemption to the 1/2-mile zone protections provided in 7.2.a.2.
2. Weirton Steel's NPDES violation records do not demonstrate sufficient ability or willingness to meet discharge limitations that help to protect human health.
3. The Ohio River will remain a natural resource much longer than Weirton Steel's present manufacturing process may be an economic resource. DEP oversight and EPA's provision for future uses should be protected.

West Virginia Rivers Coalition hopes that the EQB will carefully weigh the long-term implications of granting an exemption to 7.2.a.2 with the longer-term protections afforded by our laws and needed by our resources. West Virginia Rivers Coalition asks that the Environmental Quality Board deny Weirton Steel's exemption request.

Sincerely,

Liz Garland
Issues Coordinator

ATTACHMENT A

NUMERIC VIOLATIONS OF WEIRTON STEEL'S NPDES PERMIT
SINCE JANUARY 1999

Results are based on data extracted on DEC-05-2002 from EPA's Permit Compliance System Database, using an online search. Months are listed when one or more numeric violations were reported for one or more outlets for each pollutant.

SOLIDS, TOTAL SUSPENDED
SEP-2002
JUL-2002
JUN-2002
MAY-2002
APR-2002
FEB-2002
JAN-2002
DEC-2001
MAR-2001
FEB-2001
JAN-2001
DEC-2000
SEP-2000
AUG-2000
JUL-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
NOV-1999
OCT-1999
SEP-1999
APR-1999
MAR-1999
FEB-1999
JAN-1999

OIL AND GREASE FREON EXTR-GRAV METH
AUG-2002
JUL-2002
JUN-2002
FEB-2002
DEC-2001
NOV-2001
OCT-2001
AUG-2001
JUN-2001
MAY-2001
APR-2001
MAR-2001
JAN-2001
DEC-2000
SEP-2000
AUG-2000
MAY-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
NOV-1999
OCT-1999
SEP-1999
AUG-1999
JUL-1999

JUN-1999
MAY-1999
APR-1999
MAR-1999
FEB-1999
JAN-1999

CHROMIUM, HEXAVALENT (AS CR)
JUL-2002
MAY-2002
MAR-2002
DEC-2001
AUG-2001
MAR-2000
DEC-1999
AUG-1999
JUN-1999
FEB-1999
JAN-1999

CHROMIUM, TOTAL (AS CR)
JUL-2002
FEB-1999

ZINC, TOTAL (AS ZN)
JUL-2002
JUN-2002
MAY-2002
DEC-2001
NOV-2001
OCT-2001
SEP-2001
AUG-2001
JUL-2001
JUN-2001
MAY-2001
APR-2001
MAR-2001
JAN-2001
DEC-2000
OCT-2000
SEP-2000
AUG-2000
JUL-2000
JUN-2000
MAY-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
OCT-1999
JUN-1999
FEB-1999
JAN-1999

MORTALITY STAT 24HR ACU CERIODAPHNIA
JUN-2001
MAR-2001
MAR-2000
DEC-1999

MORTALITY STAT 24HR ACU PIMEPHALES
MAR-2001
MAR-2000
DEC-1999

FLUORIDE, TOTAL (AS F)
NOV-2000

IRON, TOTAL (AS FE)
JUN-2002
MAY-2002
FEB-2002
JAN-2002
APR-2001
FEB-2001
JAN-2001
DEC-2000
AUG-2000
MAY-2000
APR-2000
MAR-2000
FEB-2000
JAN-2000
DEC-1999
SEP-1999
APR-1999
FEB-1999
JAN-1999

LEAD, TOTAL (AS PB)
FEB-2002
JAN-2002
DEC-2001
JUN-2000

TOXICITY, PIMEPHALES CHRONIC
JUL-2002
JAN-2001
JUL-1999

Weirton Area Water Board

200 MUNICIPAL PLAZA - WEIRTON, WV 26062

December 5, 2002

Mr. Ed Snyder
Chairman
WV Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2126

Re: Public comment from the Weirton Area Water Board to be read into the record during the Weirton Steel public hearing before the WV Environmental Quality Board regarding their request for a permanent variance to the "Half Mile Rule".

Dear Chairman Snyder,

As per your invitation extended through Melissa Carte of the WV Environmental Quality Board enclosed please find our comment which we would like to have read into the public record during the public hearing on December 16, 2002 at 6:30 pm at your offices in Charleston with regard to Weirton Steel's request for a permanent variance to the "Half Mile Rule". Unfortunately timing for public notification limited your being able to grant our request to hold this meeting in Weirton; we intended to attend and comment at that time. We appreciate your invitation to read our written comments into the public record. If you have any questions with regard to our comments please contact me at your convenience.

Sincerely,

Jim Shockley

Chairman
Weirton Area Water Board
phone: 1-304-797-8566

Weirton Area Water Board

200 MUNICIPAL PLAZA - WEIRTON, WV 26062

December 5, 2002

Mr. Ed Snyder
Chairman
WV Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2126

Re: Public comment from the Weirton Area Water Board to be read into the record during the Weirton Steel public hearing before the WV Environmental Quality Board regarding their request for a permanent variance to the "Half Mile Rule".

Dear Chairman Snyder,

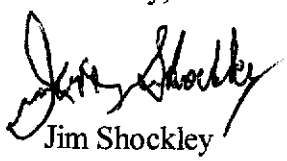
On behalf of the Weirton Area Water Board (WAWB) I would like to thank Chairman Snyder for making this opportunity available for us to enter our comments into the public record with regard to Weirton Steel Corporation's (WSC) request for a permanent variance to the "Half Mile Rule."

The WAWB would like to reach an agreement with WSC and sell WSC quality potable water at a reasonable price. Several years ago we invested approximately $20,000 and numerous staff man hours into an engineering facility's plan to determine that we could provide WSC approximately four million gallons of potable water per day for approximately less than half the cost charged to our other residential and industrial customers. Since capital improvements to the Weirton Water Treatment Plant would need to be made to accommodate WSC's water demands the City also included in this proposal a four year lead time for delivery of potable water to the WSC connection points. The City justified this significant discount because the purchase water agreement did not include line distribution maintenance throughout the WSC facilities; our responsibility would end at the metered connection points established by WSC and City engineers. The negotiations with WSC at that time also included an opportunity for WSC to provide capital improvement funding directly to the City which would result in the City being able to provide an even greater discount to WSC for potable water. The City was under the understanding that negotiations were progressing in a mutually favorable manner but since WSC was approaching a deadline to comply with the "Half Mile Rule" more time would be needed to complete the negotiations, perform all the capital improvements and provide WSC with potable water. Upon WSC's request the City agreed to document its support for the extension to the Environmental Quality Board and WV State Legislature supporting WSC's variance to the "Half Mile Rule." The variance was granted for a three year period and the City continued to make attempts to negotiate a purchase water agreement with WSC..

Since the WSC variance was approved the City established the WAWB which has continued to approach the prospect of selling water to WSC in a favorable manner. Unfortunately WSC has not responded to our requests to continue serious negotiations for the purchase of potable water until recently. Although WSC discontinued these negotiations for reasons known to them, the WAWB has continued to work toward obtaining federal or state grants which could be used toward providing additional discounts to WSC's potable water price. Recently the WAWB has met with Congressman Alan Mollohan in an effort to obtain federal funds to capitalize on plant expansion and provide an even greater water discount to WSC; we are still awaiting the outcome of these meetings. Within the past several years the WAWB has also invested in the development of a hydraulic model for the entire city water distribution system which has been used to project water flow and pressure potentials at proposed connection sites to WSC. The hydraulic model developed by Thrasher Engineering of Charleston has been used to improve the facilities plan to further insure WSC potable water demands can be met at all proposed connection sites. The City and the WAWB has invested significant money and time in developing a purchase water agreement that will provide WSC with quality water that will meet current and future state and federal water quality regulations, meet WSC potable water demands, and insure adequate water production capacities for future development.

WSC's interest in negotiating a purchase water agreement appears to be dependent upon the implementation deadline of the "Half Mile Rule." It is our opinion that if a permanent variance is granted to WSC's outfall 002 WSC will discontinue negotiations with the WAWB and a purchase water agreement will never be negotiated. Future water quality regulations are requiring nearly all public water systems to capitalize on equipment necessary to meet more stringent water quality standards. When these costs are distributed across a larger number of gallons sold the increased cost per gallon of water produced are lower. It is therefore our opinion that negotiating a purchase water agreement with WSC would be in favor of WSC and the entire Weirton Community. Due to the investment of time and money the WAWB has made in continuing to develop the best possible price for a purchase water agreement, and due to the fact our requests to Congressman Mollohan are still outstanding we are requesting that no more than a one year extension be granted at this time to WSC for their variance to the "Half Mile Rule." It is also our opinion that a one year limitation to this variance will keep WSC interested in continuing negotiations for a purchase water agreement that will benefit all residents, businesses, and future development for the City of Weirton.

Sincerely,



Jim Shockley

Chairman
Weirton Area Water Board

STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES

Bob Wise
Governor

Paul L. Nusbaum
Secretary

September 26, 2002

Edward M. Snyder, Ph.D., Chair
Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2125

RE: Weirton Steel's One Half Mile Variance Request
Weirton Steel Water System
PWSID WV9915030, Hancock County

Dear Dr. Snyder:

Our staff appreciates the opportunity to respond to the Weirton Steel request for a permanent extension of the exclusion of a portion of the Ohio River from the "half mile rule" in the water quality standards as stated in 46 CSR1, 7.2.a.2 of the West Virginia Legislature Rules of the Sate of West Virginia Environmental Quality Board, 46 CSR 1 and the West Virginia Legislature Rules of the Department of Environmental Protection, 47 CSR 10 and 11. It is our understanding that Weirton Steel is basing this request on the fact that they are meeting current NPDES limitations and the mixing plume in the river eliminates any effect the discharge water would have on the quality of the intake water. Relative to our role to assure that water is safe for human consumption, the following comments are provided:

1. A concern with the limited finished water testing (VOC, SOC, and Inorganics) every three years and the threat of an accidental industrial spill, that may exit outfall Outlet No. 003 undetected and enter the intake of the public water supply a short distance (1455 feet) downstream. Periodic testing mandated to meet NPDES permit and Safe Drinking Water Act monitoring requirements may not be at a frequency to adequately determine excursions. We are also concerned about the possibility of other presently unregulated contaminants that may be present in the discharge and may become future concerns for the drinking water supply.

2. An adverse public reaction to using drinking water this close to a discharge point is likely.

BUREAU FOR PUBLIC HEALTH
Office of Environmental Health Services
815 Quarrier Street, Suite 418 (Morrison Building)
Charleston, West Virginia 25301-2616

3. The last NPDES permit granted a varience to Weirton Steel and was extended to June 30, 2003, to allow Weirton Steel system time to find an alternative source of drinking water. This action reinforces regulatory concerns with the proximity of the discharge and public water systems intake points. These were previously a concern and with ever increasing regulatory oversight have become a more important consideration. In most likelihood, future regulations will continue to increase this concern.

4. New federal EPA drinking water rules, the Enhanced Surface Water Treatment Rule (ESWTR) and the Stage 1 Disinfection/Disinfection ByProducts (S1D/DBP) Rule, have been finalized. The S1D/DBP rule requires finished water results at the maximum residence time in the distribution system to be below 0.064mg/L for Total TriHaloMethanes (TTHMs) and 0.048 mg/L for 5 HaloAcetic Acids (HAA5s). In order for Weirton Steel to qualify for the disinfection profiling waiver under this rule, the system must collect one sample each for TTHMs and HAA5s in the distribution system during the month of August after January 1, 1998, and before June 30, 2003. The sample results must be in compliance with the MCLs to be considered for a disinfection profiling waiver. The waiver is not automatic. A water sample analyzed from the finished plant tap on August 1, 2001, had TTHMs of 0.12mg/L indicating, in this sample, that the MCL (Maximum Contaminant Level) to meet established guidelines has been exceeded. It should be noted that this result does not reflect TTHMs at the maximum residence time in the distribution system. The ESWTR requires a three log reduction/inactivation for giardia and cryptosporidium. Changes made in disinfection practices to address TTHMs and HAA5 may compromise compliance with the ESWTR. All discharges, particularly when there is a minimal mixing zone, will most likely hamper the ability of the drinking water treatment system to meet the new requirements.

If additional information concerning this domestic public water supply is needed, please contact me at 304-558-2981.

Sincerely,

Barbara S. Taylor, Director
Office of Environmental Health Services

WEIRTON
STEEL CORPORATION

December 16, 2002

Mr. Edward Snyder, Ph.D., Chair
West Virginia Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, WV 25311-2126

Re: Requirements Governing Water Quality Standards – Section 7.2.a.2

Dear Mr. Snyder:

This letter serves to respond to the comments contained in a letter you received from the Weirton Area Water Board ("WAWB") dated December 5, 2002 regarding a proposed change to Section 7.2.a.2 of the West Virginia Water Quality Standards, which is commonly referred to as the "half-mile rule" ("Rule"). The WAWB has requested that the Environmental Quality Board ("EQB") only grant a one year extension to the existing variance for the language at Section 7.2.a.2 so as to keep Weirton Steel Corporation ("WSC") at the bargaining table to continue discussions on potable water purchase from the WAWB. The WAWB makes no claims of any adverse environmental impact from the proposed change. Instead the WAWB suggests that WSC is currently having discussions with the WAWB only because of its pending request to make WSC's site-specific exemption to the Rule permanent. This assertion is simply not true. On the contrary, the removal of the Rule from the negotiating table should finally get both parties on the same page if they are to reach agreement on the financial terms of this project.

Weirton Steel has consistently maintained that **any decision regarding the Rule should be based on environmental impacts**. The granting of a permanent variance will have no adverse environmental impact on the City of Weirton's ("City") water supply. The obvious point is that the City's intake isn't even within one-half mile of WSC's Outlet 002. The City's intake is located more than three miles downstream of Outlet 002 and is therefore not impacted by the existing Rule or the proposed exemption to the Rule.

The City's position seems to be that WSC should be obligated for the expense of a new intake - absent any justification that a new intake is even necessary to eliminate any adverse impacts on human health arising from the discharge at Outlet 002. The City has maintained that the cost of a new intake should be included in any cost analysis conducted during its negotiations with WSC. This position is simply inappropriate. WSC believes that it has presented a strong argument to the EQB regarding the lack of human health impacts from Outlet 002 on the WSC intake. The proposed change to the Rule will allow the WVDEP and WSC to use a modified mixing zone in developing health-based discharge limitations at Outlet 002. The need for a new intake only exists at this time because of the existence of the Rule in an environmental regulation and not because of any actual environmental need. Discharge limits can be imposed at Outlet

002 that would be protective of human health and would eliminate the need to relocate the WSC intake, upgrade the wastewater treatment system at outlet 002 or shutdown the WSC drinking water facility. Again, these limits would be fully protective of any human health concern and would eliminate the need for a financially struggling company to spend enormous amounts of money unnecessarily. Denying the variance provides no environmental protection benefits, nor human health benefits. Rather, the benefit that is gained is the City's ability to leverage WSC to increase its estimate of its internal water production costs by factoring in the cost of relocating its intake and/or any other of the listed remedies.

We cannot stress enough that this environmental issue is irrelevant to the negotiations, provides the City with unfair leveraging power, and should no longer be a distraction if both parties are to be fair and sincere at the negotiating table.

In addition to the lack of environmental impact of the proposed rule change on the City's water intake, it is important for the EQB have an understanding of WSC's recent efforts toward negotiating a water purchase agreement with the City.

In 1999, WSC engaged Michael Baker, Inc. Consulting Engineers ("Baker) to measure WSC's average daily and peak consumption of potable water. In addition, Baker was charged with developing a computerized model to conduct directional and flow analysis. Residual and static pressures were to be measured in order to determine pressure requirements to be met by the WAWB. Lastly, Baker was to determine the cost and feasibility of tie-in points in the north end of the City where WSC could tie-in to the WAWB distribution system. The cost for WSC to conduct this engineering study was more than $250,000 which included the cost for Baker's engineering services as well as for the purchase and installation of twenty (20) water meters with radio telemetry.

In 2000, WSC implemented certain cost saving measures and decided to delay all non-critical capital expenditures. This resulted in the Baker study being placed on hold until 2001. A preliminary report was prepared in July 2001 with a final report issued in September 2001. A copy of the final report was provided to the City in early 2002.

At the request of the WAWB, WSC sent letters to Congressman Mollohan and Senators Byrd and Rockefeller in early 2001 supporting the City's request for federal funding to be used to upgrade the City's water treatment plant. This action was necessary since it became obvious to both parties that significant financial assistance was needed for this project if it was to go forward due to the wide gap between WSC's existing costs for producing potable water and the prices for potable water that the WAWB was quoting WSC.

Because previous negotiations on a water purchase agreement between WSC and the City indicated a significant cost increase to WSC, as well as WSC's desire to focus its financial and legal resources on implementing its five part out-of-court restructuring plan, negotiations and discussions between the two parties did not occur during 2001 and early 2002. WSC's restructuring plan included a vendor financing program (completed in October of 2001), a new financing facility (completed in October of 2001), a bond exchange to restructure long term debt

(completed in June of 2002), and amendments to the WSC corporate charter and an asset acquisition program, both of which were recently voted on last week.

During a bimonthly meeting between the City of Weirton and WSC on April 18, 2002, WSC officials informed the City that the Company was going to pursue a permanent variance from the Rule. Further, they stated that they believed that the Rule should be "taken out of the equation" from the negotiations because the purchase of potable water from the City was not an environmental issue. WSC also discussed the fact that its NPDES Permit was up for renewal and that it was proposing to modify the existing water quality-based effluent limitations ("WQBELs") for WSC's Outlet 002 based on the use of a modified mixing zone that would not overlap the WSC intake. Since WSC would soon have three of the five parts of its financial restructuring program completed, the parties decided to initiate renewed discussions on negotiating a potable water agreement.

Since the April 18, 2002 meeting, WSC officials have met with officials from the City and/or the WAWB on at least six (6) occasions to discuss the purchase of potable water. All parties now have an understanding of the plant's desired expansion size, investment cost and WSC's economic breakeven point. Ultimately, WSC's decision on whether or not to purchase potable water from the WAWB will be primarily based on the economics of the agreement, specifically the purchase price of potable water.

As you can see from the attached letter to Weirton Mayor Dean Harris from Bill Kiefer of WSC dated November 1, 2002, WSC has tried to place this issue in the proper context with the City of Weirton. Likewise, we are hopeful that EQB is able to see that the granting of a permanent variance from the Rule to WSC will not result in any adverse environmental impacts. Further, notwithstanding the fact that the water negotiations should be irrelevant to the EQB's consideration and review of the Company's request for a permanent variance, WSC has repeatedly stated that a permanent variance will not result in the termination of WSC's desire to purchase water from the WAWB if an agreement can be reached that is affordable to both parties. In summary, denial of WSC's request to modify the Rule only serves to put WSC at a disadvantage in its negotiations with the WAWB as well as result in additional uncertainties as to the continued economic viability of the Company. Thank you for your time and consideration on this matter.

Sincerely yours,

Mark Vignovic

Mark Vignovic
Director, Environmental Control

WEIRTON
STEEL CORPORATION

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November 1, 2002

Mayor Dean Harris
City of Weirton
200 Municipal Plaza
Weirton, WV 26062

Re: Half Mile Rule
Request for Permanent Variance

Dear Dean:

Several Weirton Steel Corporation personnel have told me that you expressed concern over a perceived lack of timely notification that the Company had filed what amounts to a permanent variance requested from the requirements of Section 7.2.a.2 of the State Water Quality Standards ("Request"), or what is commonly known as the "Half Mile Rule". Since I am concerned by your reaction, I am responding in writing so as to provide a clear basis for future discussions if the same prove necessary and also to give you the comfort of having a written position from Weirton Steel.

Water purchases and the Half Mile Rule have been discussed in recent bimonthly meetings between the parties. In the April 18, 2002 meeting, Mark Vignovic, the Company's Director of Environmental Control, informed the City that the Company was still going to pursue a permanent variance from the Half Mile Rule. Further, he stated his belief that the Half Mile Rule should be "taken out of the equation" from the water purchase negotiations because the purchase of potable water from the City is simply not an environmental issue and excused himself from WSC's water purchase negotiating team.

On a technical basis, he also discussed the fact that our NPDES Permit was up for renewal and that we were proposing to modify the existing water quality-based effluent limitations ("WQBELs") for WSC's Outlet 002 based on the use of a mixing zone that would not overlap the WSC intake. Since the WSC intake is located less than one half mile downstream of outfall 002, based on the language of the Half Mile Rule as it currently reads, the West Virginia Division of Environmental Protection ("WVDEP") will likely impose drinking water quality criteria as effluent limitations at outfall 002 in any NPDES Permit issued to WSC without any consideration of a mixing zone. As part of its NPDES Permit negotiations, WSC had proposed WQBELs based on a limited mixing zone for human health criteria in the event the Company's efforts to amend the Half Mile Rule were successful. (I am not sure I made this totally clear, but I think it suffices for our purposes.)

This is the perfect segue into, in my opinion, the two key elements of this issue, first the granting of a permanent variance will have no adverse impact on the City's water supply; and second, the Company is interested in purchasing potable water from the City.

The first obvious point is that the City's intake isn't even within one-half mile of outfall 002. As you may know, the City's intake is located more than three miles downstream of Outlet 002 and is therefore not impacted by the existing Half Mile Rule or the proposed exemption to the Rule. (The old "5 Mile Rule" applied but a similar permanent variance was started.)

In 1994 and 1995, WSC commissioned a study, which has been presented to WVDEP, ORSANCO and others, that demonstrates that the Company's discharge at outfall 002 (the outfall in question with respect to the Half Mile Rule) has no adverse impact on the water quality and aquatic community in the Ohio River. The Company also conducted a mixing zone analysis and a dilution study in 1995 and 1998 to develop WQBELS at outfall 002 that would be fully protective of the human health water quality criteria in the Ohio River including the vicinity of WSC's own intake.

Further, I want to take this opportunity to address specific concerns that you raised with Mark on Wednesday based on information that you learned from a newspaper article in the Charleston Gazette. First, the United States Environmental Protection Agency ("EPA") has not taken an adverse position to the Half Mile variance. In a letter received by the West Virginia Environmental Quality Board ("EQB") on October 3, 2002, the EPA states that it had not yet received the scientific rationale for the variance that ensures the protection of human health and that it was withholding its decision until the EQB provided the same.

Second, the West Virginia Bureau of Public Health did ask the Company whether its finished drinking water would be able to meet the new, more stringent Maximum Contaminant Levels ("MCL") for TTHM that will become effective in December, 2003. Based upon a review of our data that we have collected for TTHM since 1989, the Company believes that it will comply with the new MCLs. With respect to whether accidental spills could endanger the intake, the Company maintains an emergency shutdown plan. WSC has only had to shut the plant down one time due to a spill event. This occurred in 1988 due to a diesel fuel spill from an oil storage facility in Floreffe, Pennsylvania. This event also affected several other intakes on the Ohio River. However, the impact of an upstream spill is simply not relevant to the calculation of effluent limits for a discharge. This is especially true when the discharge and intake are owned and operated by the same entity.

Third, the DEP has requested additional information and clarification with respect to the Company's requested NPDES Permit changes. We are in the process of drafting a response to their questions. However, as with the EPA, the DEP has not taken an adverse position to the Request. We believe that the DEP's position is one of simply withholding its decision until it has received sufficient additional information and/or clarification from WSC, and has had a chance to review and study the information in conjunction with our requested NPDES Permit changes.

Lastly, Mark informed me that you were dismayed at the way the City was portrayed in the information that you had received. I don't know what you are upset about but can perhaps respond if you make me aware of specific concerns. I believe our efforts should be focused on the potable water purchase issue and that negotiations between the two parties will move forward at a more fruitful rate and depth if the City were to provide its costs related to the proposed expansion scenario(s) and the City's flows and pressure requirements for the proposed four tie in points.

I feel it necessary to raise this point since it appears to WSC that ever since we started our negotiations on this matter, the City's position is that the Company is obligated for the expense of a new intake, absent any justification that a new intake is even necessary to eliminate any adverse impacts on human health arising from the discharge at outfall 002. The City continues to maintain that the cost of this intake should be included in any cost analysis conducted during our negotiations. I believe I created this confusion when I originally opined that perhaps the Company could contribute its cost of moving the intake or the outfall to the construction cost of the water project which would reduce the City's construction cost and the resultant purchase rates. At the time that I made this suggestion Weirton Steel had a budget for projects such as this and such is simply no longer the case. I have not been considering this approach for a long time.

I hope that the information provided above alleviates your concerns with respect to this issue. As previously discussed, if we successfully agree on a water purchase rate that makes economic sense to both parties and the Company enters into an agreement for the same, we would still pursue a permanent variance so as to provide a reliable backup to the City's system. The time and expense that the Company has gone through to chase down previous three-year variances is worth avoiding. (Even though the variance may be good for three years, to extend it, we have to start the process more than a year before the deadline.) We should focus our negotiations on finalizing the true costs of this project so that we can pursue alternative funding sources to cover any shortfalls in the event they arise, if both parties are to avoid or minimize any rate increases.

We share a long, and I 'd like to think cooperative, history between the two parties. WSC is committed to continuing along this path, and we truly want an arrangement which is a win-win for both parties if at all possible. We look forward to continuing our discussions.

If you would like to discuss this issue further, please do not hesitate to call me.

Very truly yours,

William R. Kiefer
Secretary and General Counsel