BEFORE THE ENVIRONMENTAL QUALITY COUNCIL

PETITION TO AMEND WYOMING WATER QUALITY RULE, CHAPTER 2, APPENDIX H	)))	05-3102

STATEMENT OF PRINCIPAL REASONS

The Environmental Quality Council, pursuant to its authority under the Environmental Quality Act, W.S. § 35-11-112, and the Wyoming Administrative Procedure Act, W.S. § 16-3-103, proposes rulemaking to amend Chapter 2 of the Wyoming Water Quality Rules. The proposed rule change leaves the Appendix H unchanged as to traditional oil and gas production facilities, removes the Appendix H provisions specific to Coal Bed Natural Gas, and revises the standards applicable to produced water discharged from Coal Bed Natural Gas Facilities in a new Appendix I.

Background

The Federal Water Pollution Control Act (the Act) of 1972, as amended by the Clean Water Act (CWA) of 1977 and the Water Quality Act of 1987, give the Environmental Protection Agency (EPA) the authority to regulate the discharge of pollutants to waters of the United States. The Act provides broadly defined authority to establish the National Pollutant Discharge Elimination System (NPDES) Permit Program, define pollution control technologies, establish effluent limitations, obtain information through reporting and compliance inspections, and take enforcement actions when violations occur.

The Code of Federal Regulations, Chapter 40 Part 123, provides procedures for States to assume responsibility for implementing the NPDES Permit Program. On

November 1, 1974, Wyoming Governor Stan Hathaway submitted a request to the EPA for Wyoming to conduct a state permit program pursuant to the provisions of the NPDES under Section 402 of the Act. On January 30, 1975, pursuant to § 402(c) of the Act, the EPA approved the Wyoming Department of Environmental Quality (WDEQ) NPDES program and suspended the issuance of NPDES permits by EPA, with a few exceptions. The Wyoming NPDES program authority was amended September 24, 1991 to include state authority for issuance of general permits. The program has been renamed Wyoming Pollutant Discharge Elimination System (WYPDES).

The WYPDES program must, at all times, be in accordance with § 401 of the Act, all guidelines promulgated pursuant to § 304(h)(2) of the Act, and the Memorandum of Agreement between the EPA Regional Administrator and the Director of the Wyoming DEQ.

Principal Reason for Revision of the Rule

The principal reason for the proposed rule revisions is: The existing Appendix H, although apparently effective to regulate water discharged in traditional oil and gas operations, has been demonstrated to be inadequate to protect water quality and prevent pollution resulting from the discharge of water from coal bed natural gas (a/k/a coalbed methane, "CBM"). The proposed Appendix I, specifically applicable to water discharged from CBM facilities, addresses those shortcomings, brings the rules in compliance with the Wyoming Environmental Quality Act, and will maintain Wyoming's primacy for delegated programs of the federal Clean Water Act.

Rulemaking Process

A group of 19 landowners and the Powder River Basin Resource Council filed a Petition to Amend Chapter 2, Appendix H December 7, 2005. The Environmental Quality Council held two public hearings on the Petition (February 16, 2006 in Cheyenne and July 17, 2006 in Casper), received and reviewed voluminous written comments, and determined that environmental concerns existed sufficient to consider a rule revision in formal rulemaking proceedings. The documents are available for review on the EQC website, http://deq.state.wy.us/eqc/index.asp, Docket No. 05-3102. The rulemaking hearing was noticed pursuant to the Wyoming Administrative Procedures Act, W.S. 16-3-103(a)(i), and a hearing was held January 17 & 18, 2007 in Cheyenne, Wyoming. The record was left open until January 29, 2007. The members of the Council have carefully reviewed the entire record, including the public comments at the rulemaking hearing as well as the entire documentary record. It is the judgment of the Environmental Quality Council that Wyoming Water Quality Rules and Regulations Chapter 2 should be amended for the reasons set forth below.

Summary of the Proposed Revisions

Appendix H is unchanged as to water quality standards applicable to traditional oil and gas production facilities. A new Appendix I would include new standards applicable strictly to water produced from CBM facilities. The Appendix I language is derived from the definition of "pollution" at W.S. § 35-11-103(c)(i) and the Wyoming Attorney General Formal Opinion No. 2006-001. It requires applicants for CBM-WYPDES permits to establish that the quantity of produced water would not cause or

have the potential cause unacceptable water quality and would not cause pollution; and it would require permit applicants to submit scientifically valid data to establish those requirements will be met.

1. EQC rulemaking authority

The Wyoming Administrative Procedures Act provides an avenue for citizens to "petition an agency requesting the promulgation, amendment or repeal of a rule." W. S. 16-3-106. The EQA also gives the EQC authority to "approve, disapprove, repeal, modify or suspend any rule [or] regulation. . ." W. S. 35-11-112(c)(i). That provision, unlike W.S. 35-11-112(a)(i), does not require recommendation from the director, administrator and advisory boards. In accordance with the WAPA, the EQC over the years has regularly considered citizen rulemaking petitions (*e.g.* the recent smoke rules, hog farm rules, and numerous petitions brought by industry itself under Chapter 1 for reclassification) without advisory board input. Citizens should be able to petition for rulemaking in exactly this sort of situation, in which the agency itself has been unable or unwilling to address a very significant environmental issue. This historic practice is authorized by the WAPA and the EQA and should not be stopped now. The suggestion that the EQC should accept the Petition and then refer it to the Advisory Board and Administrator would defeat the purpose of the citizen Petition. This rule has gone through several years of the Advisory Board and Administrator process. A referral now would only serve to delay.

The Council applauds the efforts of the CBM Task Force, the voluntary Produced Water Initiative, and the Wyoming legislature to address some of the issues arising from

CBM development, and it is hoped they each will find some success within their spheres. Similarly, the Council encourages any cooperative efforts to resolve differences between industry and landowners. The Council agrees such efforts may often bring the best solution. However, the Council notes the playing field is not level, and hearing testimony made it clear significant problems persist. The possibilities for other approaches to solutions do not alter this Council's authority, jurisdiction, or obligation to proceed with rulemaking.

2. Regulating traditional oil and gas separately from CBM

There was extensive public comment regarding the fear that the rule change would impact water users who use water discharged from traditional oil and gas operations, and there were (somewhat contradictory) comments questioning the basis for issuing a different regulation for CBM. The Council finds the distinction between water produced from traditional oil and gas is evident in the unqualified support in the record for continued discharge of such water, in contrast to the very strong opposition expressed by some to the water produced from CBM.

The Wyoming Attorney General has opined that, "if the Council desires to promulgate a separate and distinct section related to CBNG, it may do so." July 12, 2006 letter from AG to EQC Chair Gordon at 8. The distinction is supported by the degree of environmental impact caused by the overwhelming volume of CBM water (cumulative water production from CBM in the Powder River Basin estimated at 1,495,153 acre-feet (11.6 billion barrels). Water production is expected to peak between 2011 and 2014 at

154,671 acre-feet (1.2 billion barrels) annually, or double the current rate. Oil production is long-term as opposed to CBM, and therefore there is a historical reliance on the oil-field water (and they are grandfathered), the SEO requires a permit for CBM water and not oil-produced water, the existing Appendix H (d) language is targeted specifically to CBM, and EPA is drafting guidance specific to CBM. All of these considerations provide a separate and distinct basis for regulating CBM water separately from traditional oil and gas-produced water.

3. Regulation of pollution

The Wyoming Environmental Quality Act charges the DEQ to "prevent, reduce and eliminate pollution." W.S. 35-11-102. There are two distinct questions: First, does the DEQ have the authority to regulate CBM water's impacts as "pollution?" Second, how should DEQ regulate CBM water as "pollution?"

(a) CBM discharge water is "pollution"

"Pollution" is defined for purposes of water quality as:

> . . . contamination or alteration of the physical, chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity or odor of the waters or any discharge of any acid, or toxic material, chemical or chemical compound, whether it be liquid, gaseous, solid, radioactive or other substance, including wastes, into any waters of the state which creates a nuisance or renders any waters harmful, detrimental or injurious to public health, safety or welfare, to domestic commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wildlife or aquatic life, or which degrades the water for its intended use, or adversely affects the environment.

W.S. 35-11-103(c)(i).

CBM water alters the physical properties of the waters of the state. CBM water is "industrial waste." Northern Plains Resource Council v. Fidelity Exploration and

Development Co., 325 F.3d 1155, 1161 (9th Cir. 2003), *cert. denied*, 540 U.S. 967 (2003) ("Because Fidelity is engaged in production of methane gas for commercial sale and because CBM water is an unwanted byproduct of the extraction process, CBM water falls squarely within the ordinary meaning of 'industrial waste.'"); Sierra Club v. Cedar Point Oil Co., 73 F.3d 546, 568 (5th Cir. 1996)(concluding "produced water" is encompassed as "industrial waste"). In addition, CBM water falls under the catchall definition of "waste" by virtue of it being both an "industrial waste" and a "liquid" or "other substance which may pollute any waters of the state."[1]

(b) DEQ has the authority to regulate CBM water's pollution effects

There is no basis for the DEQ position that it is only authorized to regulate water quality. To the contrary, the EQA specifically recognizes that quantity of water has important environmental impacts that can and should be regulated. That is why, for example, the EQA contains the following language:

> No person, except when authorized by a permit issued pursuant to the provisions of this act, shall:
> . . .
> (iv) Increase the quantity or strength of any discharge. . .

W.S. 35-11-301(a).

The Wyoming Attorney General has also recognized that authority. In answer to the question posed by the EQC, the Wyoming Attorney General has opined that the Council has "the authority to regulate the quantity of water produced" from CBM, if the Council determines that the produced water is a "nuisance" under the statutory definition of "pollution."

[1] "Waste" is defined as "sewage, industrial waste and all other liquid, gaseous, solid, radioactive, or other substances which may pollute any waters of the state." WYO. STAT. § 35-11-103(c)(ii). CBM water is a substance which may pollute waters of the state.

> When considering "nuisance" in context, it is clear that it must be a discharge of any 'acid or toxic material, chemical or chemical compound, whether it be liquid, gaseous, solid, radioactive or other substance, <u>including waste</u> into any water of the state" that creates the nuisance. <u>The Council is granted the authority to regulate the discharge of substances into the waters of the state that create a "nuisance" in that sense.</u>

July 12, 2006 AG letter at 6 (emphasis added). The AG recognized that "nuisance" includes "waste." "Waste" includes CBM water. When the waste causes harm or injury, it is the DEQ's charge to control the environmental degradation through effective rules that are effectively implemented.

CBM water quality (including its quantity and timing) is creating a nuisance that renders the waters harmful to agricultural and other beneficial uses, and to livestock, wildlife or aquatic life. (W.S. 35-11-103(c)(i)). The EQC and the DEQ have the authority, as well as the obligation, to regulate "pollution" – including the quantity and timing, as well as the quality, of water that creates that nuisance.

(c) <u>The rule does not infringe on the State Engineer's authority or affect irrigation return flows</u>

This approach is consistent with the EQA, and does not run afoul of the limitation on interference with the State Engineer jurisdiction, duties or authorities. W.S. 35-11-1104. (The State Engineer specifically stated at the hearing that he did not believe the proposed rule infringed upon his authority). DEQ will not mandate water rights administration, but would leave it as usual to the SEO and Board of Control. DEQ will require permittees to reduce or eliminate pollution; the mechanism for doing so is up to the permittee, who would need to obtain necessary permits from the other agencies as applicable. This is no different than the current structure: many DEQ-issued permits are

dependent upon reservoirs in order to meet WYPDES permit terms. Reservoir permits are then obtained from the SEO, and that structure does not interfere with SEO jurisdiction. The Council rejects the attempts of some commenters to style the issue as one of Constitutional law or "waters of the state" as unfounded. The Council is aware of the limits of its jurisdiction and will not exceed them.

The Council also notes that 40 CFR § 131.10(a) requires that:

> Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State 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. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States

Finally, "return flows from irrigated agriculture," are specifically excluded from discharges requiring a WYPDES permit, which should allay the fears of some commenters that this rule would have any impact on irrigation return flows. (Water Quality Rules, Chapter 2, §2(b)(v).

(d) The rule would not prohibit discharges of CBM water

Pollution is allowed within "clear and defined boundaries." The Council finds nothing in the record to support the contention that the proposed rule would require DEQ to prohibit CBM water discharge. The rule would require DEQ to regulate its impacts, in accordance with the Environmental Quality Act.

Appendix I(a)(iii) has two parts: First, it defines when discharged water should be regulated by the DEQ – when it is "pollution." "Pollution," in the context of CBM water, includes discharges that alter the physical, chemical or biological properties of

water, including industrial waste. The Environmental Quality Act authorizes DEQ to regulate pollution. "Pollution" is a function of chemical concentrations as well as turbidity, temperature, alterations to the hydrograph, timing and flows. The first paragraph of Appendix I(a)(iii) directs DEQ to regulate CBM water that causes pollution in all its forms.

Second, Appendix I(a)(iii) limits the scope of CBM water that should be regulated by DEQ to water "which:" creates a nuisance or causes injury. The rule's opponents have ignored the qualifications following the word "which" that are set forth in (a), (b), (c) and (d). Not all pollution would be regulated or prohibited under this language; only pollution that causes injury.

The contention that the language would require all discharges to cease is unsupported in the record. The Council rejects some commenters' attempts to create an ambiguity by their determination to interpret the rule in a distorted fashion, saying it would prevent all discharges. That is not the case.

The Council does recognize the validity of some of the criticism regarding the rule language, and has edited portions that are superfluous and may cause confusion. This is not a "new" rule. The nuisance standard that some commenters protested was sprung upon them at the January hearing has in fact been in the language of the proposed rule since May 8, 2006 (Petitioner's First Status Report, Exhibit 24), and is in the language of the proposed rule that was sent to public notice pursuant to the APA. Appendix I(a)(iii)(a) "creates a nuisance")

The rule requires that discharges that cause damage such as the damage to Marge West's alfalfa meadows would have to be handled by one of the several alternatives to

surface discharge (or better water management). For those people who say they like the water, it is not a nuisance and does not cause injury. Its discharge would continue to be permitted under this rule language (and the permit applicant may have to pipe around the West Ranch). This is not an "all-or-nothing" solution; rather it is a solution that requires DEQ to regulate the effect of pollution when they cause harm.

The Council expects that the DEQ will continue to exercise its discretion in applying this rule, as it does any other rule. For example, DEQ has regulated water quality, not by prohibiting discharges that result in degradation of quality by elevating EC and SAR, but by allowing that degradation to a level that DEQ considers to be protective. DEQ has the ability to implement rule language in a reasonable and not an absolute manner. For example, it interprets the Chapter 1, Section 20 "no measurable decrease in crop or livestock production" language by allowing an "acceptable" level of decrease in production. It could and should apply the same sort of implementation approach to the proposed Appendix I language. Appendix I (a)(iii) instructs DEQ to regulate pollution within defined boundaries.

4. Regulation of water quantity that impacts water quality

Section (a)(ii) of Appendix I conforms with Wyoming Attorney General Formal Opinion 2006-001 by requiring permit applicants to show that the "quantity of produced water shall not cause, or have the potential to cause, unacceptable water quality." The reason for this language is to instruct the DEQ that it must require applicants to establish more than just acceptable water quality at the end of pipe. The record shows that DEQ has historically failed to look to the fate of discharged water as it travels downstream.

The SA Creek example in Petitioner's Rulemaking Hearing Brief and related exhibits demonstrate the need for this provision (as do portions of the *Maycock* transcript designated in this record). Water quality in SA Creek exceeded the 7500 μmhos/cm limit for EC that DEQ set as being protective of livestock and wildlife. Livestock and wildlife do not consume water solely at the end of pipe. Yet when presented with evidence the EC downstream exceeded 7500 μmhos/cm, DEQ said it could take no action. DEQ must issue permits that authorize it to require a quantity and quality of discharge that protects downstream water quality.

The Council understands that DEQ may have valid reasons for *enforcing* effluent limits at the end of pipe; however, it must set those limits based upon a scientifically valid modeling of what the water quality will be at relevant points downstream.

5. Requirement of scientifically defensible data

The Council finds that the Petitioner's proposed requirement of "credible data" is not justified. Instead, the Council's Appendix I(a) requires applicants to submit "scientifically defensible site specific data establishing each of the following:" (This is the term proposed by the Advisory Board in the proposed Agricultural Use Policy – Tier 3 – No harm analysis.) The reason this language is necessary is that the evidence in the record demonstrates that too often permit applications are based on shoddy science, and DEQ issues permits based on shoddy science. The "scientifically defensible site specific data" requirement is a specific instruction to DEQ to raise its standards so that the data submitted by permit applicants is adequate to justify permit issuance and so that DEQ issues permits with meaningful and enforceable terms.

Conclusion

The Council has determined that amendment of Chapter 2, Appendix H and addition of Appendix I are necessary to address the demonstrated failures of the current rule in regulating the pollution caused by CBM discharges, to provide the department with adequate authority to operate the WYPDES program and to maintain primacy under the requirements of the Clean Water Act and the requirements of W.S. 35-11-301(a)(i), (ii) and (iv) and 35-11-302(a)(ii) and (v) and to provide improved protection to public health and the safety for public water supplies.

EXECUTED THIS _____ DAY OF _____, 2007.

FOR THE ENVIRONMENTAL QUALITY COUNCIL

_____

Chairperson