

**Comments of The Williams Companies
Regarding
CDPHE General Permit Number COG9400000:
Discharges Associated with Produced Water Treatment Facilities**

June 8, 2009

Introduction

Williams Production RMT Company ("Williams") is one of the most active exploration and production companies in the State of Colorado. The extraction of oil and natural gas inevitably results in the production of water as well. The full development of the energy potential of Colorado's resources requires that there be an economically feasible and environmentally protective method for handling these produced waters. Williams applauds the efforts of the Colorado Department of Public Health and the Environment to develop a general permit for the discharge of produced water. If drafted correctly, a general permit can reduce the regulatory burdens and delays associated with individual permits while simultaneously protecting the environment. In an effort to further both of those goals, Williams is pleased to submit the following comments on the Draft General Permit for Discharges Associated with Produced Water Treatment Facilities.

Coverage under the Permit

In several places the Draft Permit indicates that terms of the permit may ultimately vary depending on the particular circumstances detailed in the permit application. *See* §§ I.A.2, I.A.3., and I.B, and Table I.B.9. Such a case by case approach to the requirements that will be imposed on an applicant could quickly undermine the whole purpose of a general permit. Making such individualized determinations is a time consuming process that can result in delay and deprive the regulated community of the predictability associated with a general permit. Williams suggests giving more transparency and predictability in the general permit.

Prohibition of the Discharge of Chemicals

The Draft Permit (§I.A.5) states that "[n]o chemicals shall be added to the discharge unless the Division grants specific approval". Produced water will almost inevitably include chemicals used in the production process. Taken literally, the language in the Draft Permit would prohibit essentially all produced water discharges. Williams suggests that the language be changed to make clear that its prohibition applies only to chemicals added to the produced water as part of the treatment of the water after it has reached the surface of the well.

Toxicity

The whole effluent toxicity (WET) testing provisions of the Draft Permit (§I.C.2) provide for a comparison in lethality between a control and the undiluted effluent. Williams' activities in Colorado are concentrated in the Colorado River Basin or in the basins of one or more of its tributaries. The receiving waters in these streams have their own chemistry and are not pristine. If the WET testing is to have any scientific validity, the control sample should reflect the same chemistry as the receiving stream. This should be made explicit in the permit. In addition, the WET testing provisions mandate the use of *Ceriodaphnia dubia*. The permit should allow the substitution of other CDPHE-approved species such as *Daphnia magna*.

Monitoring Frequency

Facilities treating produced water are often located in remote and difficult to access locations. The frequency with which discharge must be monitored and effluent samples taken and transported for analysis is therefore particularly significant in the produced water context. The Draft Permit provides that the frequency of required testing can be reduced based on the quantity of treated produced water that is discharged. §I.B. Williams believes that the permit should also allow a reduction in the scope and frequency of testing over time based on the outcome of testing in the first part of the permit's life.

Differential Treatment of Coal Bed Methane Produced Waters

The Draft Permit covers discharges from facilities that treat water produced both from conventional oil and gas formations and from coal bed methane formations. The composition of water produced from conventional formations and the composition of water produced from coal bed methane formations can be very similar or they can be very different. *See A White Paper Describing Produced Water from Production of Crude Oil, Natural Gas, and Coal Bed Methane*, Argonne National Laboratory (2004). The Draft Permit, however, assigns different effluent limits based not on the quality of the produced water, but rather on the water's source.

It does not make sense to treat otherwise identical waters differently merely because of the formations from which they are produced. In fact, EPA's technology-based effluent limitations for this sector apply universally to "those facilities engaged in the production,

field exploration, drilling, well completion and well treatment in the oil and gas extraction industry". 40 CFR §435.20. There is no basis for excluding coal bed methane operations from this clear regulatory language.

The Water Quality Control Commission's Regulation 62 provides that "If the Commission has not so promulgated effluent limitation guidelines for any particular industry, but that industry is subject to effluent limitation guidelines promulgated by the United States Environmental Protection Agency pursuant to the Federal Water Pollution Control Act of 1972, the effluent from these industries shall be subject to the applicable EPA guidelines and shall not be subject to the effluent limitations of 62.4" The same industry produces both conventional and coal bed methane produced water. The same technology will be used to treat both. The same standards should apply to both.

Finally, it is important to note that the Draft Permit also applies the stricter coal bed methane standard to discharges of water *any part of which* comes from a coal bed methane formation. Applying the stricter coal bed methane standard to facilities that handle water produced by both conventional and coal bed methane operations will discourage the development of commercial facilities that could treat all produced waters at a given operating area.

Conclusion

Williams appreciates the opportunity to comment on the proposed Draft Permit. Williams reserves the right to supplement these comments and to challenge any provision of the proposed permit either now or upon issuance.