

**Environmental  
Resources  
Management**

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**MAY 26 2009**

WATER QUALITY CONTROL DIVISION

May 22, 2009

Mr. Gary Beers  
CDPHE, WQCD-P-B2  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

**RE:   *Comments on Draft CDPS General Permit for Discharges  
Associated with Produced Water Treatment Facilities***



Dear Mr. Beers:

ERM, on behalf of Aspen Creative Enterprises, LLC (ACE), thanks you for the opportunity to comment on the Colorado Department of Public Health and Environment, Water Quality Control Division's (WQCD's) draft *CDPS General Permit for Discharges Associated with Produced Water Treatment Facilities*, which was posted for public comment on April 24, 2009. The proposed permit demonstrates WQCD's appreciation for the complexities of the oil and gas industry and we appreciate the WQCD's efforts to streamline the permitting process. ACE respectfully offers these comments regarding the proposed permit.

**Background**

ACE is a provider of innovative mobile water cleaning technologies specifically designed for produced water and flowback generated during oil and gas operations. ACE uses a variety of treatment technologies including: particulate filtration, centrifugal separation, media filtration, granular activated carbon filtration, reverse osmosis, and a proprietary sonoluminescence technology. The technology combines ozone, ultrasound, and electro-precipitation in a pressure compensated reactor tank to oxidize soluble and insoluble organics, oxidize bio slimes and oil sheens, oxidize heavy metals, decompose dissolved ammonia, eliminate divalent cations and other contaminants associated with oil and gas production.

**Comment #1: Please change or define the term "produced water" in the permit title, permit text, and fact sheet so that it is clear that the permit applies to discharges associated with treatment of formation**

**water as well as flowback and other waters that are co-produced during oil and gas exploration and production.**

*Rationale:*

Section II.b of the permit fact sheet states: "This general permit provides coverage for discharges associated with produced water treatment facilities to surface waters of the state. Produced water includes all waters and particulate matter associated with oil and gas producing formations (EPA, 1976)." Although EPA is cited in the text, there is no reference available in any of the public notice documents, and thus no further definition of produced water is provided.

Section II.c of the fact sheet then goes on to define the types of produced water treatment facilities that the permit covers, including centralized E&P waste management facilities that receive "for collection, treatment, temporary storage, and/or disposal or produced water, drilling fluids, drill cuttings, completion fluids, and other exempt E&P (Exploration and Production) wastes that are generated from two or more production units or areas or from a set of commonly owned or operated leases."

When taken together, these sections of the fact sheet seem to indicate (quite appropriately) that the permit is meant to apply to a variety of waters that may be generated during oil and gas exploration and production, including waters that are reused multiple times and/or that contain additives, such as completion fluids and drilling fluids. However, the term "produced water" is often used to refer exclusively to formation water, thus creating some ambiguity in the applicability of the permit. A detailed definition of produced water or a change to another more comprehensive term would resolve this ambiguity.

*Requested Changes:*

1. Replace the term produced water with "exploration and production (E&P) waste" as defined in Series 100 of the the new oil and gas regulations promulgated by the Colorado Oil and Gas Conservation Commission (COGCC) in December 2008 and as reproduced below:

EXPLORATION AND PRODUCTION WASTE (E&P WASTE) shall mean those wastes associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances and which are uniquely associated with and intrinsic to oil and gas exploration, development, or production operations that are exempt from regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 USC Sections 6921, et seq. For natural gas, primary field operations include those production-related activities at or near the wellhead and at the gas plant (regardless of whether or not the gas plant is at or near the wellhead), but prior to transport of the natural gas from the gas plant to market. In addition, uniquely associated wastes derived from the production stream along the gas plant feeder pipelines are considered E&P wastes, even if a change of custody in the natural gas has occurred between the wellhead and the gas plant. In addition, wastes uniquely associated with the operations to recover natural gas from underground storage fields are considered to be E&P waste.

Use of the term "E&P Waste" instead of "produced water" minimizes confusion since it is consistent with the COGCC rules as well as with WQCD's use of the term "Centralized E&P Waste Management Facility" in Section II.c. of the fact sheet. (As you may be aware, the COGCC rules do not provide a definition of produced water.)

OR

2. Provide a definition "produced water" in the text of the fact sheet that clearly states that produced water not only includes formation water, but formation water with additives, hydraulic fracture flowback, imported water, recycled water, drilling fluids, completion fluids, drill cuttings, and other liquids generated during oil and gas exploration and production activities.

**Comment #2: Please specify in the permit or fact sheet that a single permit certification issued under the new general permit can be applicable to multiple discharge points in a general watershed area.**

*Rationale:*

ACE's mobile system treats water and discharges it to surface water located at or near the well pad or at a close-by central processing location. Therefore, the social and environmental costs of transporting large volumes of water via truck or pipeline are eliminated or greatly reduced. As you may be aware, heavy truck transportation of water is a source of air pollution, noise, and social disruption for local communities. By the same token, the installation of pipelines can present water quality issues such as damage to riparian zones or sedimentation from construction activities. Thus, ACE's mobile system presents tremendous environmental advantages over systems that must transport water for treatment.

In order for oil and gas producers to benefit from ACE's mobile system, ACE needs to be able to quickly and efficiently obtain authorization to discharge to surface waters. Therefore, ACE believes it is critical that the permit allow for a single permit certification to be potentially applicable to multiple discharge points (field permit).

Currently, field permits are used successfully by WQCD's stormwater program to provide CDPS permit coverage for separate oil and gas operations that cover a large geographic area but which are part of a common plan of development. According to WQCD's July 2007 document, *Stormwater Fact Sheet-Construction at Oil and Gas Facilities*, "this option allows oil and gas companies to save considerable resources by not having to apply for permit coverage and inactivation on a site-by-site basis..." Field permits also save agency permitting resources while providing a similar (or higher) level of environmental protection than multiple separate permits.

ACE believes that field permits can be advantageous for the proposed permit in the same ways that field permits are advantageous in the stormwater program. In addition, field permits are compatible with the COGCC's new rules, which strive to protect the environment with environmental planning over a wide geographic area through Comprehensive Drilling Plans (CDPs). For these reasons, ACE requests that the proposed general permit for discharge from centralized E&P waste treatment facilities *specifically* state that coverage

of multiple discharge locations is allowable under a single permit certification.

*Requested Change:*

Add the following or similar language to Section II.c of the fact sheet:

“Upon the request of the permittee and/or recommendation of the permit drafter, WQCD may issue coverage for discharges from multiple locations within an oil and gas field under a single permit certification.”

Once again, we appreciate the opportunity to comment on the draft permit. If you should have any questions or wish to discuss these comments please do not hesitate to contact us.

Sincerely,



Donald G. Malotte, P.G.  
*Principal In Charge*



Lillian Gonzalez, R.E.M.  
*Project Manager*

cc: David A. Cockrell, Managing Member, Aspen Creative Enterprises, LLC

John F. Stevens, Managing Member, Aspen Creative Enterprises, LLC