



Colorado Department  
of Public Health  
and Environment

**COLORADO DISCHARGE PERMIT SYSTEM (CDPS)  
FACT SHEET FOR MODIFICATION 3  
PERMIT NUMBER CO0048003  
PIONEER NATURAL RESOURCES USA, INC.  
WEST SPANISH PEAKS COALBED METHANE OPERATIONS  
LAS ANIMAS COUNTY**

**Lori Mulsoff  
3/22/16**

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**I. TYPE OF PERMIT**

**A. Permit Type:** Modification No. 3 – Minor Amendment

**B. Discharge To:** Surface Water

**II. FACILITY INFORMATION**

**A. SIC Code:** 1311 Crude Petroleum and Natural Gas

**B. Facility Location:** Approximate Middle Point of Operation,  
Latitude 37° 12' North, Longitude 104° 58' West

**III. PURPOSE OF MODIFICATION**

On January 22, 2016, Pioneer submitted a modification request for the following:

Pioneer National Resources USA, Inc. ("Pioneer") requests that the Water Quality Control Division modify discharge permit CO-0048003 in the following ways:

- (1) Reduce the frequency of chronic Whole Effluent Toxicity (WET) testing from quarterly to semiannual monitoring;
- (2) Extend the chronic WET compliance period from July 1, 2017 to July 1, 2018; and
- (3) Extend the due dates for actions required under Paragraph (I)(B)(2)(b) of the permit by one year, i.e.:
  - (a) Change the due date of "Hire a Consultant/Professional Engineer" from 12/31/2015 to 12/31/2016;
  - (b) Change the due date of "Commence Required Work or On-Site Construction" from 07/01/2016 to 07/01/2017; and
  - (c) Change the due date of "Complete Required Work or On-Site Construction" from 06/30/2017 to 06/30/2018.

The accompanying letter to the modification request adds rationale for request #1 (Reduction in frequency):

As Pioneer has documented in its comments to permits CO-0048003 and CO-0047776, quarterly chronic WET testing is considerably more difficult and costly to conduct than quarterly acute WET testing, and it is more difficult to consistently execute, given laboratory, logistical, access, and seasonal considerations. At the same time, the source of chronic toxicity (total dissolved solids) has been verified repeatedly, reducing the value of frequent testing. As WQCD's WET Policy notes:

Consideration [for reduced monitoring frequency] will also be given to any changes to the facilities treatment processes, source waters, or activities, in relation to whether previous data can be used to show compliance with a new or changed WET limit. If deemed appropriate by the Division, the permit may be modified to revise the ongoing monitoring and toxicity investigation requirements to avoid an unproductive expenditure of the permittee's resources, provided that the underlying obligation to eliminate any continuing exceedance of the toxicity limit shall remain.

Based on the above discussions and available data, we respectfully request that the frequency of chronic WET monitoring be reduced from quarterly to semiannually for permit CO-0048003.

The accompanying letter to the modification request also adds rationale for requests #2 and #3 (Compliance Schedule Extension and Milestone dates):

Even with a decreased frequency of chronic WET testing, it is possible that Pioneer will not be able to meet the chronic WET standards set forth in permits CO-0048003 and CO-0047776. Such chronic WET standards currently have a compliance period until July 1, 2017. As Pioneer has documented in its comments to the draft permits and its appeal of the permits as issued, an inability to meet the chronic WET permit limits will require Pioneer to implement alternatives to its current manner of surface discharge for the outfalls associated with permits CO-0048003 and CO-0047776. Letter from Ronda Sandquist to Janet Kieler, Apr. 6, 2015, at 33-40; Petitioner's Notice of Appeal, Request for Adjudicatory Hearing, and Request for Stay, Dec. 14, 2015, at 9-12.

These alternatives, all of which require the halting of surface discharge, may include drilling new injection wells and either installing piping and facilities to inject such water; installing piping, pumping stations, and other associated equipment and infrastructure to send the subject produced water to an existing injection well; or constructing facilities for the truck hauling of the subject produced water to appropriate facilities. Any of these alternatives will require a substantial amount of time and money to study, plan, permit, and work with local landowners to obtain the easements, rights-of-way and surface use agreements to put the alternative into operation. In light of the foregoing, Pioneer respectfully requests that the compliance period for chronic WET testing in the permits CO-0048003 and CO-0047776 be extended until July 1, 2018.

In addition, Part I.B.2.b of each of the above referenced permits requires certain interim actions to be taken. In light of the request for an extended compliance period, Pioneer respectfully requests that the due dates for the three specified actions under each permit be extended by one year (i.e. from 12/31/15 to 12/31/16, 7/1/2016 to 7/1/2017, and 6/30/2017 to 6/30/2018).

#### IV. CHANGES AS A RESULT OF THE MODIFICATION

(1) Reduction of the frequency of chronic Whole Effluent Toxicity (WET) testing from quarterly to semiannual

The Division has evaluated this request and agrees that a reduction in the monitoring frequency for chronic WET testing for outfalls 005A, 241A, and 245A is appropriate at this time for the following reasons;

- The permittee has completed an extensive investigation on the effluent and aquatic toxicity toxicants. The Division agreed with the permittee's conclusions that Total Dissolved Solids, specifically, sodium bicarbonate is the primary ion causing toxicity in the discharge, with chloride as a possible additional toxicant (CO00048003 Fact Sheet, May 2015). Further, the facilities have been conducting and evaluating toxicity for several years. The CBM effluents show relatively little variation in aquatic life toxicants, and synergistic effects are not expected to occur due to the lack of effluent variation and the lack of chemical addition, And;
- The permittee has acknowledged above that steps are being taken to eliminate these discharges in the West Spanish Peaks (WSP) discharge permit, CO0048003.

**For Outfalls 005, 241, and 245, the reporting frequency for the chronic WET limitations in Part I.A.2. of the permit has been reduced from “quarterly” to “semi-annual” until the conclusion of the compliance schedule. Upon the conclusion of the compliance schedule, monitoring frequency will increase from semi-annual back to quarterly.**

(2) Extension of the chronic WET compliance period

Per 61.8(3)(n)(ii):

The Division, may, upon request of the permittee, revise or modify a schedule of compliance if the Division determines that the permittee has shown good and valid cause exists for such revision.

The permittee has clearly identified 3 paths forward to eliminate surface water discharges for these outfalls. The discharges would instead be sent to: (1) new injection wells; or (2) utilizing existing injection wells; or (3) constructing facilities for hauling discharge to an appropriate disposal facility (see above).

The Division acknowledges that construction of infrastructure improvements, obtaining easements and surface use agreements, and the acquisition of equipment to eliminate the surface water discharges will take additional time to complete beyond the current compliance schedule, which ends June 30, 2017. The Division has evaluated the requested extension from July 1, 2017 to July 1, 2018 and agrees that an additional year is reasonably needed to implement the selected alternative, and the permittee has demonstrated a “good and valid cause” for the extension.

**For Outfalls 005, 241, and 245, the effective date of chronic WET limitations in Part I.A.2. of the permit have been extended from “July 1, 2017” to “July 1, 2018.”**

(3) Extension of the due dates for actions required under Paragraph (I)(B)(2)(b) of the permit by one year (Compliance schedule interim milestones)

The Division agrees that, due to the extension of the compliance schedule, and the selected alternative to discontinue surface water discharges, a revision of the associated interim milestones is warranted.

The compliance schedule milestones in the permit issued May 2015 for chronic WET are as follows;

Event	Description	Due Date
Hire a Consultant/ Professional Engineer	Submit a letter of notification that a Colorado licensed engineering consultant has been obtained to design treatment processes or indicate that underground injection or other method is selected	12/31/2015
Commence Required Work or On-Site Construction	Submit a letter of notification that construction has commenced, or if underground injection was selected provide a progress update.	07/01/2016
Complete Required Work or On-Site Construction	Complete construction of facilities or other appropriate actions, which will allow the permittee to meet the final limitations.	06/30/2017

Note that while the permittee suggests extending each existing milestone date by 1 year, the Division has extended the *final* compliance date while adding “progress” milestones to ensure that progress towards eliminating discharges is evaluated on an ongoing basis. Note that since the permittee has indicated that underground injection or hauling is selected, the milestone due 12/31/2015 is complete.

The Division has modified Part I.B.2 of the permit compliance schedule as follows;

Event	Description	Due Date
Commence Required Work or On-Site Construction	Submit a report documenting the construction plans, including potential locations, and a list of potential disposal facilities, or if underground injection, provide a progress update on access agreements obtained, additional piping planned, materials obtained, and/or any construction initiated.	07/01/2016
Commence Required Work or On-Site Construction	Submit a report documenting the selected location, the additional progress on finalizing the construction plans and the selection of a disposal facility, or if underground injection, provide a progress update on access agreements obtained, piping locations finalized, materials obtained, and any construction initiated.	01/01/2017
Status/Progress Report	Submit a report documenting the progress on initiating construction and a verification that a disposal facility will be ready to accept wastewater by July 1, 2018, or if underground injection, provide documentation that all access agreements are obtained, materials have been obtained, and a detail of specific construction initiated.	09/01/2017

Complete Required Work or On-Site Construction	Submit a report documenting the progress on construction activities, including plans for finalizing construction, or if underground injection, provide documentation that construction is nearing completion.	03/01/2018
Achieve Final Compliance with Discharge Limits	Complete construction of facilities or other appropriate actions, which will allow the permittee to meet the final limitations.	06/30/2018

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## V. PUBLIC NOTICE COMMENTS

The public notice period was from February 12, 2016 to March 14, 2016. No comments were received during the public notice period.