



Colorado Discharge Permit System (CDPS)
 Fact Sheet for Modification 1
 Permit Number CO0045161

COLOWYO COAL COMPANY L.P., COLOWYO COAL MINE, MOFFAT AND RIO BLANCO COUNTIES

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 7/31/2019

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I. TYPE OF PERMIT

A. Type of Modification: Modification 1 - Minor Amendment

B. Discharge To: Surface Water

II. FACILITY INFORMATION

A. SIC Code: 1221 (Coal Surface)

B. Facility Location: 5731 State Highway 13, Colowyo Coal Mine, Meeker, CO
 Latitude: 40.265648, Longitude: -107.808334

III. SCOPE OF MODIFICATION REQUEST

The Water Quality Control Division received a modification application from Colowyo Coal Company L.P. (the permittee) on February 20, 2019, in which the permittee states that outfalls 003 and 006 discharge on an intermittent basis. The original modification request follows:

‘After reviewing the final permit issued 8/31/2018 (effective 10/1/2018) and the WQCD Water Pollution Control Program Policy #1 "Implementation of the Narrative Standard for Toxicity in Discharge Permits using Whole Effluent Toxicity (WET) Testing" (2010 WET Testing Policy), we believe that the policy was applied incorrectly for outfalls 003 and 006. These outfalls discharge on an intermittent basis, consistent with the exemptions language in page 4, "C) It can be shown that discharge frequency and duration is tied solely to precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops".

Outfall 003, which receives stormwater runoff from the coal loading and storage areas, discharges during spring runoff (i.e. snowmelt) and after significant precipitation events. 2018 discharge data is provided in the attached chart showing discharge only related to spring runoff (snowmelt).

Outfall 006, which receives stormwater runoff and railroad tunnel wash down water, has not discharged since 2002 and is not anticipated to discharge absent a large precipitation event that exceeds the capacity of the





sediment control pond.’

IV. DIVISION ANALYSIS

As provided in Table II-1 of the fact sheet for the current permit (dated 8/31/2018), the discharge from outfalls 003 and 006 is commingled stormwater and process water (wash water) - the description from the referenced fact sheet follows:

Outfall	Feature Name	Latitude Longitude	Wastewater Source	Design Flow (MGD)	Receiving Water
003A	Gossard Pond	40.308333°N, 107.806111°W	Stormwater runoff from coal storage area, coal crushing facility, and crushing facility wash water. Coal storage pile is sprayed with dust suppressant.	0.82	Wilson Creek
006A	Railroad Loop Pond	40.308333°N, 107.806389°W	Stormwater runoff from coal storage area, railroad tunnel wash water, and runoff from pond outslope of Gossard Pond 003A	0.32	Wilson Creek

The current permit requires chronic WET testing for both outfalls (with a delayed effective date of August 1, 2020) based on the instream waste concentrations calculated in the WQA. In this modification request, the permittee states that the discharge from outfalls 003 and 006 is intermittent, and that discharges are solely caused by precipitation events. The portion of the 2010 WET Testing Policy referenced in the request is the Exemptions From the Normal Acute vs. Chronic Determination (Section III.2.c), which states that:

.....

- c. Where the discharge is intermittent, as defined below, acute WET testing may be substituted for chronic WET testing. The basis for this is that there would not be chronic exposure of aquatic life to the effluent.

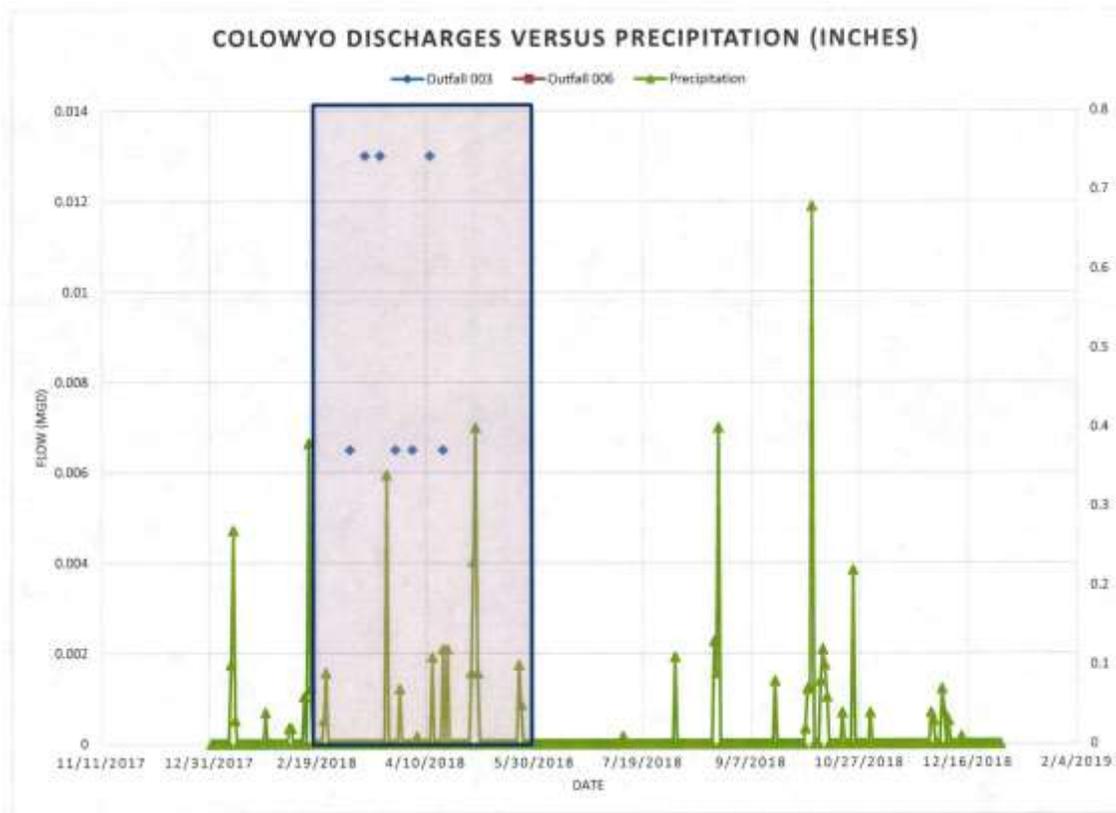
Definition of Intermittent discharges – For the purposes of this policy, to be considered an intermittent discharge one of the following must apply:

- A) the maximum discharge frequency is less than 3 consecutive days (72 hours), and less than 3 days per 7 day period, and less than 10 days total per month
- B) the maximum discharge frequency is less than 5 consecutive days (120 hours) and less than 5 total days per month
- C) It can be shown that discharge frequency and duration is tied solely to precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops.

.....

The modification application included a chart (COLOWYO Discharges vs Precipitation - reproduced below) to show the discharges from these outfalls relative to precipitation events during the same timeframe. The chart shows that outfall 003 discharges after some precipitation events, but not consistently (see in particular the October 2018 0.7 inch precipitation event that did not result in a discharge from the outfall). In contrast, outfall 006 has not discharged since 2002 (prior to the dates on the chart), despite precipitation events during this time frame.





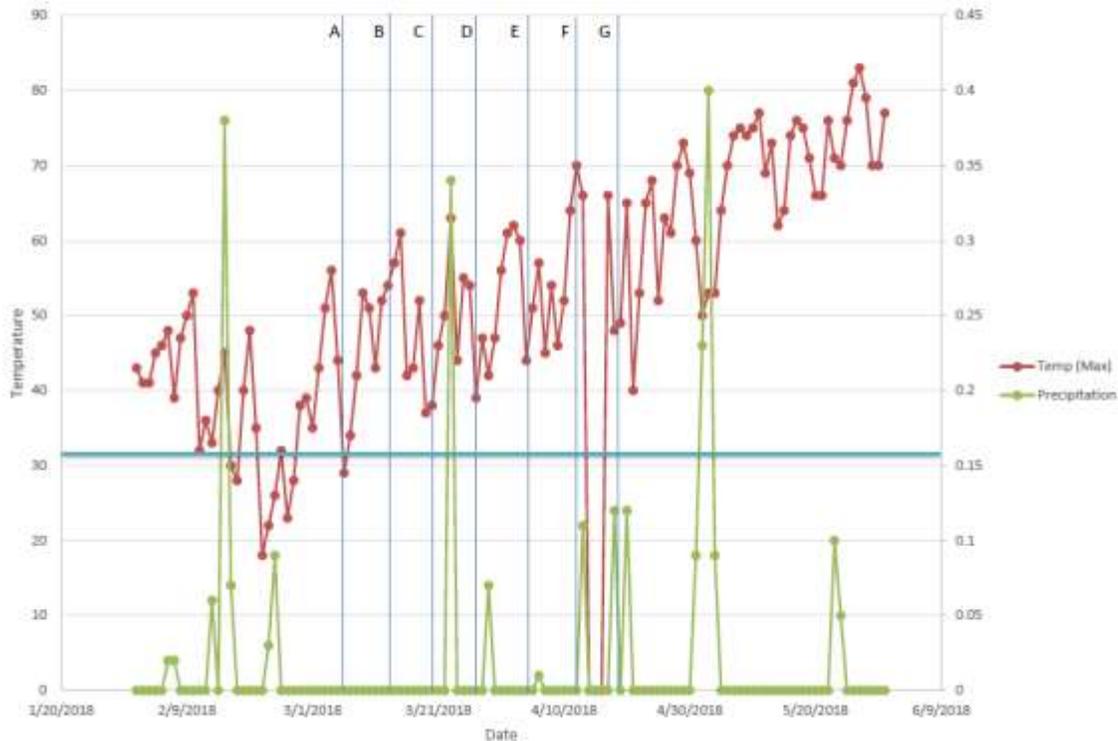
The permittee provided additional information on 5/22/2019 to document the conditions associated with each of the discharges from outfall 003 (i.e., date of discharge, and associated precipitation events and temperature). This information is summarized in the table below; the associated graphic showing Daily Max Temperature & Precip vs Discharge Days follows the table.

Discharge date	ID	Conditions associated with discharge
3/6/2018	A	-snowfall from winter including 2/13-23 (0.63 water equivalent inches), warming conditions on 3/3-4 (maximum temperatures above 45°F and minimum temperatures above freezing)
3/13/2018	B	-snowfall from winter, warming conditions on 3/12 (max temperatures above 45°F, while there was still freezing conditions overnight)
3/20/2018	C	-snowfall from winter, warming conditions on 3/18 (max temperatures above 45°F, while there was still freezing conditions overnight)
3/27/2018	D	-snowfall from winter and snow/rain mix on 3/23 (0.34 water equivalent inches), warming conditions on 3/23-26 (maximum temperatures mostly above 45°F and minimum temperatures above freezing on 3/23 only)
4/4/2018	E	-snowfall from winter and snow/rain mix on 3/29 (0.07 water equivalent inches), warming conditions on 4/1-2 (maximum temperatures mostly above 45°F (3/31-4/3) and minimum temperatures above freezing)
4/12/2018	F	-snowfall from winter and snow/rain mix in March, warming conditions on 4/5-12 (maximum temperatures mostly above 45°F and minimum temperatures above freezing on 4/12)
4/18/2018	G	-snowfall from winter and snow/rain mix in 4/18 (0.12 water equivalent inches), warming conditions on 4/17-18 (maximum temperatures mostly above 45°F and minimum temperatures above freezing on 4/17)





Graph 1. Daily Max Temperature (°F) & Precip (water equivalent, inches) versus Discharge Days (A-G) from 2/1/2018 - 5/31/2018, Craig, CO



This additional information documents that each of the discharges occurred during, or within 48 hours, of a preceding precipitation event, where precipitation includes snow melt conditions in the spring. As such, the permittee has documented that the intent of precipitation event exemption in the 2010 WET Testing Policy has been met.

V. CHANGES MADE AS A RESULT OF THE MODIFICATION

Effluent limitations:

Consistent with the modification request and the 2010 WET Testing Policy, the division modified the permit to require **acute WET testing** instead of **chronic WET testing** at **outfalls 003 and 006** (see Part I.C of the permit). *Ceriodaphnia dubia* and *Pimephales promelas* organisms are required for the acute WET testing. The division added Permit Compliance criteria (Part I.B of the permit) for all discharges from outfalls 003 and 006, and Specific Monitoring Requirements for Acute WET Testing were added at Part I.D of the permit.

In addition, the division added an effluent limitation for outfalls 003 and 006 (see Part I.C of the permit) to facilitate the demonstration that the discharge frequency and duration for outfalls 003 and 006 is ‘tied solely to precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops’ (consistent with the 2010 WET Testing Policy). This requirement is applicable to all discharges from the outfalls (i.e., not just those that are sampled to meet the quarterly WET requirements), and requires the permittee to demonstrate that for rainfall, the discharge occurred during the precipitation event, or within 48 hours after measurable precipitation has stopped; and for snowmelt, the discharge occurred during pond inflow from the snow melt event, or within 48 hours after pond inflow has stopped. These requirements are consistent with the Alternate Limitation Burden of Proof Requirements (Part I.C.1.b of permit C00045161) currently implemented in the permit. The new effluent limitation table includes reporting requirements and a pass/fail limitation. The collective changes to the permit effluent limitation tables for outfall 003 and 006 follow.

The WET testing requirements in the permit effluent limitations tables for outfall 003 and 006 changed from:





<u>ICIS Code</u>	<u>Effluent Parameter</u>	<u>Effluent Limitations Maximum Concentrations</u>		<u>Monitoring Requirements</u>	
		<u>30-Day Average</u>	<u>Daily Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
WET, chronic until July 31, 2020					
TKP6C	Static Renewal 7 Day Chronic <i>Pimephales promelas</i>		NOEC or IC25 \geq Report	Quarterly	3 Grabs/ Test
TKP3B	Static Renewal 7 Day Chronic <i>Ceriodaphnia dubia</i>		NOEC or IC25 \geq Report	Quarterly	3 Grabs/ Test
WET, chronic beginning August 1, 2020					
TKP6C	Static Renewal 7 Day Chronic <i>Pimephales promelas</i>		NOEC or IC25 \geq IWC	Quarterly	3 Grabs/ Test
TKP3B	Static Renewal 7 Day Chronic <i>Ceriodaphnia dubia</i>		NOEC or IC25 \geq IWC	Quarterly	3 Grabs/ Test

To:

<u>ICIS Code</u>	<u>Effluent Parameter</u>	<u>Effluent Limitations Maximum Concentrations</u>		<u>Monitoring Requirements</u>	
		<u>30-Day Average</u>	<u>Daily Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
WET, acute					
TAN6C	LC50 Statere 96 Hr Acute* <i>Pimephales promelas</i>		LC50 \geq 100% (daily min)	Quarterly	Grab
TAM3B	LC50 Statere 48 Hr Acute* <i>Ceriodaphnia dubia</i>		LC50 \geq 100% (daily min)	Quarterly	Grab
84165	Discharge event observation [Visual Monitoring] (Discharge due to rain/snow melt)	# of Occurrences (Discharges per Month)	Pass/Fail**	Monthly	Calculated

*ACUTE WET BASED ON INTERMITTENT DISCHARGE. SEE DEFINITIONS

**Rainfall: a discharge that occurred during the precipitation event, or within 48 hours after measurable precipitation has stopped is indicated as a 'pass'. Snowmelt: a discharge that occurred during pond inflow from the snow melt event, or within 48 hours after pond inflow has stopped is indicated as a 'pass'. Discharges due to other conditions is indicated as a 'fail'.

Definition:

The division also added the definition of 'intermittent discharge', consistent with the 2010 WET Testing Policy, to the permit.





VI. PUBLIC NOTICE COMMENTS

The public notice period was from 6/13/2019 to 7/15/2019. Comments were received from Tri-State Generation and Transmission Association Inc. The comments and division responses are provided below.

Comment 1. Part I.B.2 - Prohibitory discharge language

The proposed language is inconsistent with the WQCD Water Pollution Control Program Policy #1 "Implementation of the Narrative Standard for Toxicity in Discharge Permits using Whole Effluent Toxicity (WET) Testing" (2010 WET Testing Policy), and appears to be in conflict with the approved "permitted features" described in Part I.A.

The 2010 WET Testing Policy in Section III.2.c.(C) states that a discharge may be excluded from chronic WET testing requirements if it is intermittent. An "intermittent" discharge includes a discharge whose "frequency and duration" is tied to precipitation events. The Policy does not require a demonstration that all of the water discharged results from precipitation events, only that the "frequency and duration" is tied to precipitation events. Therefore, the 2010 WET Testing Policy allows the discharge to be excluded from chronic WET testing while still managing other approved waters under this CDPS permit (e.g. "crushing facility wash water" at Outfall 003, and "railroad tunnel wash water" at Outfall 006) within the sediment control ponds, as long as the discharge frequency and duration is not driven by those flows. Part I.A. of the discharge permit specifically authorizes discharge of wash water at Outfalls 003 and 006. These wash waters are anticipated to comprise a negligible portion of the total flows to these ponds, with amounts that are not sufficient to affect the frequency or duration of discharge as demonstrated in the information submitted by Tri-State with its permit modification request.

The language in Part I.B.2 of the Draft Permit could be interpreted to prohibit the discharge of any water other than stormwater, in conflict with Part I.A. of the Permit and the 2010 WET Testing Policy. In order to make the permit language internally consistent and conform to the 2010 WET Testing Policy, we recommend the following revision:

2. Discharge(s) from Outfalls 003 and 006

This permit ~~does not only~~ authorizes any intermittent discharges from outfalls 003 and 006 ~~that are not solely caused by precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops.~~

This allows Outfalls 003 and 006 to consist of "intermittent discharges" as defined in the Draft Permit and WET Policy. The other "intermittent discharge" conditions may also be appropriate for these outfalls (as defined in Appendix B-Definitions, #15 (A) and (B); and 2010 WET Testing Policy Section III.2.c.(A) and (B)). Currently, the facility does not have enough information to demonstrate that these conditions were met for Outfalls 003 and 006. However, in the event that confirming information is available in the future, the application of acute WET testing would also be appropriate for the other "intermittent discharge" conditions. The recommended permit language allows the discharge to occur under these other conditions consistent with the WET Policy.

Response 1: The division appreciates the suggested text provided in the comment, but does not agree with the permittee's interpretation of the Colorado Water Quality Control Division's 2010 WET Testing policy.

In the modification request, the permittee requested an exemption from the normal chronic WET determination (i.e., substitution of acute WET testing for chronic WET testing) for outfalls 003 and 006 based on the premise that the discharges from these outfalls are 'intermittent'. The permittee specifically identified that the discharges are intermittent, consistent with the language from the 2010 WET Testing policy, Section III.2.c.(C), i.e., that the 'discharge frequency and duration is tied solely to precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops'.

The referenced language in Part I.B.2 of the Draft Permit does not explicitly or implicitly prohibit the discharge of "crushing facility wash water" at outfall 003, and "railroad tunnel wash water" at outfall 006 that is commingled with stormwater from a precipitation event, but it does limit discharges from these outfalls to only those associated with a precipitation event, consistent with the WET policy. Said differently, the exemption at Section III.2.c.(C) of the 2010 WET Testing Policy applies only when the discharge from an outfall (commingled process water/stormwater or stormwater-only) is associated with a precipitation event.





If, as suggested in the comment, the permittee determines that a different exemption in Section III.2.c. of the 2010 WET Testing Policy is more appropriate for discharges from outfalls 003 and 006, the permittee may submit a modification application to the division for review.

No changes to the permit resulted from this comment.

Comment 2. Part I.C.1. - Delayed effective date for acute WET

The current 2018 permit contains a delayed effective date for WET testing for both outfalls 003 and 006. This delayed effective date was approved by the Division because the facility had no previous WET data available to confirm whether it could comply with this new permit condition. WET data (acute or chronic) is still not yet available for these outfalls because there has been no discharge since the new permit was effective, and the same compliance circumstances are present (unknown potential for compliance). Therefore, we request that the current delayed effective date of August 1, 2020 be incorporated in the final permit modification with "report only" acute WET conditions included through July 31, 2020.

Response 2: The division acknowledges that WET testing is a new permit requirement. EPA's database of record (ICIS) indicate that outfalls 003 and 006 have not discharged since the permit effective date (10/1/2018). Therefore, the division implemented a delayed effective date for the acute WET testing similar to that implemented for the previous chronic WET testing to give the facility time to evaluate the discharge and ensure compliance with the limit. Note that the delayed effective date was updated from August 1, 2020 to July 1, 2020 to align with the WET quarterly sampling requirement. The permit effluent tables were updated accordingly.

Comment 3. Part I.C.1. - "84165 - Discharge event observation" effluent limitation for Outfall 003

This new effluent limitation (ICIS Code 84165, Discharge event observation) appears to be a novel approach to assure that the discharge is intermittent. However, in reviewing the data provided by Colowyo (and Tri-State) and proposing this draft permit modification, the Division conducted an analysis that determined that both Outfalls 003 and 006 met the definition of "intermittent discharge." The Division summarized this analysis as "the permittee has documented that the intent of precipitation event exemption in the 2010 WET Testing Policy has been met" (Fact Sheet, page 4). We request that this effluent limitation be "report only" identifying the number of discharge occurrences and whether the discharge was intermittent as defined in Appendix B. #15 of the draft permit modification.

Response 3: The permittee is correct that the effluent limitation (ICIS Code 84165, Discharge event observation) is intended to document that the discharges from outfalls 003 and 006 continue to meet the exemption criteria for intermittent discharges (Section III.2.c.(C) of the 2010 WET Testing Policy) such that the substitution of acute WET testing for chronic WET testing is correct.

The information provided by the permittee in the modification application documents the conditions associated with the seven discharges from outfall 003 that occurred during approximately one calendar year (2018) over ~1½ months (from 3/6/ - 4/18/2018). No data is available for outfall 006 as it hasn't discharged since 2002.

While the division found this information sufficient to substitute acute WET testing for chronic WET testing in the permit (consistent with the 2010 WET Testing policy), the division's practice for discharges that meet one of the exemptions for 'intermittent discharges' is to add specific limitations to the permit to ensure that acute WET testing (instead of chronic WET testing) is appropriate. A report-only condition (as suggested in the comment) does not achieve this objective.

No changes to the permit resulted from this comment.





Comment 4. Part I.C.I. - "84165 - Discharge event observation" effluent limitation for Outfall 006

The same comment applies for Outfall 006 as above for Outfall 003.

Response 4: Please see response to Comment 3.

FOR DIVISION USE ONLY	
G3A	DMRs: Regular Submission Frequency

