COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

December 4, 2023

Tony Tennyson
Colowyo Coal Company L.P.
5731 State Highway 13
Meeker, CO 81641

Re: Colowyo Coal Mine (Permit No. C-1981-019)
Technical Revision No. 161 (TR-161)
Adequacy Review

Dear Mr. Tennyson:

After reviewing Colowyo Coal Company L.P. (Colowyo) Technical Revision No. 161, the Division has the following adequacy comments:

1. It was observed that Figure Exhibits 7-25E-6 and 7-25E-7 were uploaded as part of the TR-161 application submission. When reviewing these figures, there does not appear to be any changes from when they were proposed under Colowyo Mine TR-160. Additionally, there is no discussion regarding these figures within the TR-161 Change Sheet summary. It is unclear to the Division to whether any changes has occurred with these figures or if they were potentially accidentally uploaded with the TR-161 application. Please provide the Division with additional information regarding Figure Exhibits 7-25E-6 and 7-25E-7.

2. When reviewing proposed Figure 7-23J-3, it appears that there are two submitted figures with this same designation. The first figure is Section 26 Pond "Watershed Areas Post Mining" while the other is Section 26 Pond "Post Mining Channels". Please provide the Division with an updated figure reference to one of the proposed Figure 7-23J-3.

3. Under proposed Exhibit 7, Item 20, Part B, pg. 3, there is a reference to the number of total Tributary Ditches as six. With the proposed TR-161, there is now a total of seven total Tributary Ditches. Please provide an updated reference to the total number of Tributary Ditches as proposed with TR-161.

4. When reviewing Exhibit 7, Item 20, Part B, a portion of proposed Tributary Ditch 1 flows over the permanent fill, the West Taylor Fill. As noted in the referenced exhibit, Rule 4.09.2(7), "makes the appropriate storm event for this small portion of channel the 100-year, 24-hour storm event". However, this channel was modeled to the 10-year, 24-hour storm event based on only a portion of the tributary lying over the West Taylor Fill. When reviewing Tributary Ditch 1 in relation to the West Taylor Fill, approximately 1,500 feet of the proposed 2,852 feet lies over the West Taylor Fill.

   Per Rule 4.09.2(7), "[s]urface water runoff from the area above the fill shall be diverted away from the fill and into stabilized diversion channels designed to pass safely the runoff from a 100-year, 24-hour precipitation event or larger event specified by the Division. Surface runoff from the fill surface shall be diverted to stabilized channels

off the fill which will safely pass the runoff from a 100-year, 24-hour precipitation event. Diversion design shall comply with the requirements of 4.05.4. 120(2)(v)(III)." Rule 4.09.2(7) requires surface water runoff from permanent fills to be directed to stable diversion which will safely pass the runoff from a 100-year, 24-hour storm event. As a result, the portion of proposed Tributary Ditch 1 that receives runoff from the permanent West Taylor Fill will need to be designed for the 100-year, 24-hour storm event. Please provide an updated design and associated models for proposed Tributary Ditch 1 to ensure Rule 4.09.2(7) is satisfied.

5. When reviewing Exhibit 7, Item 20, Part B, the Network Structuring associated with the post-mining effluent demonstration has 'Trib 4' (Structure #33) reporting to 'WFSP-2 to Station 85+00' (Structure #6). However, associated Maps and Figures show Tributary Ditch 4 reporting to Tributary Ditch 3. Please provide an updated post-mining effluent demonstration with a corrected Network Structuring or updated associated Maps and Figures showing the corrected Tributary Ditch 4 confluence as necessary.

6. It appears that WFSP-2 on Proposed Map 12 is errantly positioned as it shown lying outside of the all proposed ditches. Please provide an updated Map 12 with a corrected position of WFSP-2.

7. When reviewing proposed Figure 7-26I-4, it is unclear to what both shades of green represent on the Figure. Please provide an updated Figure 7-26I-4 with updated references on the legend identifying the what both shades of green represent.

8. The Division has performed a cost estimate to determine the reclamation liability associated with TR-161. This includes the construction of the newly proposed post-mining channels Tributary 1 located at the South Taylor Pit and Dusky Draw located at the Collom Pit. The total amount of this estimate is **$114,512.00** (see attached cost estimate). The Division's cost estimate is consistent with previous cost estimates approved by both the Division and Colowyo. The Division respectfully requests a response from Colowyo with any questions regarding the cost estimate or an acceptance of the Division's estimate.

This concludes the Division's comments regarding the Colowyo Mine TR-161. If you have any questions, feel free to contact me.

Sincerely,

Zach Trujillo
Environmental Protection Specialist
(303) 866-3567 ext. 8164
Zach.Trujillo@state.co.us

COST SUMMARY WORK

Task description: **Post-Mining Channels: ST Trib 1 and Collom Dusky Draw**

Site: **Colowyo Coal Mine** Permit Action: TR161 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 12/4/2023 County: Moffat Filename: C019-000
User: ZTT

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Construct ST Pit Trib 1 and Collom Pit Dusky Draw	NA	1	409.50	$85,680
			SUBTOTALS:	**409.5**	**$85,680**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$1,731
Performance bond:	1.05	Total =	$900
Job superintendent:	204.75	Total =	$13,325
Profit:	10.00	Total =	$8,568
		TOTAL O & P =	$24,524
		CONTRACT AMOUNT (direct + O & P) =	$110,204

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$0	Total =	$0
Engineering work and/or contract/bid preparation:	2.00	Total =	$2,204
Reclamation management and/or administration:	1.91		$2,105
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$28,832
		TOTAL BOND AMOUNT (direct + indirect) =	**$114,512**

Post-Mining Drainage Channel Construction (Ditches)

Task description: **Construct ST Pit Trib 1 and Collom Pit Dusky Draw**

Site: **Colowyo Coal Mine** Permit Action: TR161 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 12/4/2023 County: Moffat Filename: C019-001
User: ZTT

Agency or organization name: DRMS

Channel	Length (ft)	Depth (ft)	Width (bottom) (ft)	Side Slopes (XH:1V)	Width (top) (ft)	Excavated Vol./LF (CY)	Excavated Vol. (total) (CY)
South Taylor Trib 1	2,852	3.00	6.00	3.00	24.00	1.6667	4,753
Collom Dusky Draw	3,568	4.00	10.00	3.00	34.00	3.2593	11,629
Totals:	6,420						16,382

Riprap	Riprap Thickness (2xD50) (ft)	Perimeter, P (ft)	Area for Geotextile (excl. anchor trenches) (sf)	Riprap Vol. (CY)
	0.00	24.97	71,225	0
	0.00	35.30	125,944	0
Totals:			197,169	0

Materials Needed:

Geotextile (SY incl. 15% wastage):	25,194
Riprap (CY):	0
Excavation (CY):	16,382

Costs:

Material Costs:	Geotextile (SY):	$3.30	Riprap (CY):	$34.50	Excavation (CY):	$0.00
Labor Cost:		$0.32		$14.65		$2.84
Equipment Cost:		$0.00		$15.10		$2.39
Means Reference		31 32 1916 1510		31 37 1310 0100		31 23 1642 0310

Totals:

Geotextile (SY):	$0.00
Riprap (CY):	$0.00
Excavation (CY):	$85,679.80

Hours:

Geotextile (SY): 87.50 SY/HR	0
Riprap (CY): 7.75 CY/HR	0.00
Excavation (CY): 40.00 CY/HR	409.56

Total Post-Mining Channel Reconstruction hours:	**409.56**	Hours
Total Post-Mining Channel Reconstruction Cost:	**$85,679**	